IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Actuarial Valuation Report
as of June 30, 2004

A MILLIMAN GLOBAL FIRM

Milliman

Consultants and Actuaries

ACTUARIAL VALUATION OF THE IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

TABLE OF CONTENTS

SECTION

APPENDICES

A MILLIMAN GLOBAL FIRM
Milliman
Consultants and Actuaries

1120 South 101st Street, Suite 400
Omaha, NE 68124-1088
Phone: (402) 393-9400
Fax: (402) 393-1037
www.milliman.com

November 18, 2004

Investment Board
Iowa Public Employees' Retirement System
7401 Register Drive
Des Moines, IA 50321

Re: Iowa Public Employees' Retirement System

Dear Board Members:

We have performed an actuarial valuation of the Iowa Public Employees' Retirement System (System) as of June 30, 2004. The major findings of the valuation are contained in this report. The benefit provisions and assumptions remain unchanged from those used in last year's valuation, with one exception. The eligibility for unreduced retirement benefits was changed for Special Services Group 1 (Sheriffs and Deputies). The years of service requirement remains at 22 or more, but the age requirement is lowered from age 55 by one year each July 1, beginning July 1, 2004, until it reaches age 50 on July 1, 2008. The split on the actuarial rate for this group was also changed from a 60% employer/40% employee split to a 50% employer/50% employee split. The airport firefighters moved from Special Services Group 1 to Special Services Group 2.

In preparing our report, we relied, without audit, on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, member data and financial information. In our examination of these data, we have found them reasonably consistent and comparable with data used for other purposes. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

We hereby further certify that all costs, liabilities, rates of interest and other factors for the System have been determined on the basis of actuarial assumptions and methods which are internally consistent, individually reasonable (taking into account the experience of the Plan and reasonable expectations of future experience); and which, in combination, offer our best estimate of anticipated experience under the Plan. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions. The Investment Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C.

We also hereby certify that the assumptions and methods used for determining the funding requirements used in the preparation of the disclosure information under GASB Statement 25 meet the parameters imposed by the Statement.

Certain retirees in IPERS receive an annual dividend payment each November. Section 97B.49F of the Iowa Code provides that, for members who retired prior to July 1, 1990, the dividend shall be adjusted each year by the lesser of:

(1) The percentage increase in the Consumer Price Index as published by the Bureau of Labor and Statistics for the 12 months ending June 30 of that year,

(2) The percentage amount that may be paid without requiring an increase in the employer/employee contribution rate, as certified by the actuary, or

(3) Three percent.

Based on the June 30, 2004 actuarial valuation, no increase in the dividend for the pre-July 1990 retirees may be paid without an increase in the statutory contribution rate of 9.45%.

Actuarial computations presented in this report are for purposes of determining the actuarial contribution rates for funding the System. Determinations for purposes other than this may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes. Any distribution of this report must be in its entirety including this cover letter, unless prior written consent from Milliman is obtained.

We would like to express our appreciation to IPERS' Staff, who gave substantial assistance in supplying the data on which this report is based.

We, Patrice A. Beckham, F.S.A., and Brent A. Banister, F.S.A., are members of the American Academy of Actuaries and Fellows of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

We respectfully submit the following report and look forward to discussing it with you.

MILLIMAN, Inc.

Sincerely,

Patrice Beckham

Patrice A. Beckham, F.S.A.
Consulting Actuary

Brent A. Banister

Brent A. Banister, F.S.A.
Actuary

SECTION I

EXECUTIVE SUMMARY

INTRODUCTION

This report presents the results of the June 30, 2004 actuarial valuation of the Iowa Public Employees' Retirement System (IPERS). The primary purposes of performing the valuation are as follows:

- to evaluate the sufficiency of the statutory contribution rate structure to fund the benefits expected to be paid to members in the future and to determine if the Plan's funding meets the criteria set out in the Funding Policy established by IPERS,
- to evaluate the funded status of the System and disclose various asset and liability measures as of June 30, 2004, and
- to analyze and report on trends in System contributions, assets, and liabilities over the past several years.

The benefit provisions, actuarial assumptions and actuarial methods reflected in this report are unchanged from last year's report, with one exception. The eligibility for unreduced retirement benefits was changed for Special Services Group 1 (Sheriffs and Deputies). The years of service requirement remains at 22 or more, but the age requirement is lowered from age 55 by one year each July 1, beginning July 1, 2004, until it reaches age 50 on July 1, 2008. The employer/employee split on the actuarial rate for this group was also changed from a 60%/40% split to a 50%/50% split. The airport firefighters moved from Special Services Group 1 to Special Services Group 2.

The actuarial valuation results provide a "snapshot" view of the System's financial condition on June 30, 2004. The results reflect net unfavorable experience for the past plan year as demonstrated by an unfunded actuarial liability (UAL) that was higher than expected, based on actuarial assumptions. The UAL on June 30, 2004 for all membership groups covered by IPERS (General and Special Services Groups) is $2.176 billion as compared to an expected UAL of $2.019 billion. The unfavorable experience was the sum of an experience loss of $75 million on the actuarial value of assets and $82 million on System liabilities.

The normal cost rate represents the portion of the ultimate cost of benefits to be received which is allocated to the current year of service worked by active members. The normal cost rate for the general membership increased from 9.06% in the 2003 valuation report to 9.09% in the 2004 valuation. Although the entry age cost method develops a normal cost rate that is expected to be relatively level, it will fluctuate from year to year depending on the demographic composition of the active members. Recent experience indicates that the average age of new entrants coming into the System is older than the average entry age of the current membership. Given the current demographic profile of IPERS membership (in particular the baby boomers), the normal cost rate is expected to increase over time. This occurs because members with a lower normal cost rate (younger hire age) leave active status and are replaced by members with a higher normal cost rate (older hire age). With the normal cost rate at its current level, only a small part of the total contribution rate is available to fund the UAL. As was the case in last year's valuation, the amortization period is infinite (the UAL cannot be amortized with the current contribution rate if all assumptions are met in the future). This is analogous to a mortgage or loan where the payment is not large enough to pay the interest on the outstanding debt. Consequently, the amount of the debt increases each year. In such a situation, even if all actuarial assumptions are met in future years, the current statutory contribution rate of 9.45% will not be sufficient to provide all of the future benefits promised to current members. This situation is not an immediate threat but represents a long term challenge which must be addressed.

In 1998, legislation was passed to create the Favorable Experience Dividend (FED) reserve. The law provides that a portion of the favorable actuarial experience, if any, in subsequent years may be transferred to the FED reserve. Legislation passed in 2000 capped the FED reserve at ten years of expected payouts at the maximum level. Based on the results of the June 30, 2004 valuation, favorable actuarial experience did not occur for the System and, therefore, there is no transfer to the FED reserve. Given expected payout levels of 1.07% per year of service (the current rate) and no future transfers to the reserve, the current FED reserve is projected to be sufficient to make payments for the next ten years (including the January 2005 payment), plus a reduced payment in the eleventh year, if all assumptions are met in future years. See Exhibit 5 for more detail. The FED calculations are based on pure market value of assets so past investment experience is fully reflected in each valuation. As a result, there is the potential for the remaining years of payment to change dramatically from year to year.

EXPERIENCE FOR LAST PLAN YEAR

Numerous factors contributed to the change in the Systems' assets, liabilities and remaining amortization period for the unfunded actuarial liability between June 30, 2003 and June 30, 2004. The components are examined in the following discussion.

ASSETS

As of June 30, 2004, the System (including Special Service groups) had total assets of $16.7 billion, when measured on a market value basis, **excluding the Favorable Experience Dividend (FED) reserve account**. This was an increase of $ 1.8 billion from the prior year. The components of this change are shown below:

		Market Value ($M)
Net Assets, June 30, 2003	$	**14,916**
• Employer and Member Contributions	+	507
• Benefit Payments and Refunds	-	798
• Expected Investment Income* (Based on 7.5% assumption)	+	1,187
• Actuarial Gain/(Loss) on Investment Return	+	914
Net Assets, June 30, 2004 Before FED Transfer	$	**16,726**
• FED Transfer Payable January 15, 2005	-	0
Net Assets, June 30, 2004 After FED Transfer	$	**16,726**

*net of expenses

On a market value basis, the rate of return was 13.78% as reported by IPERS. The market value of assets is not used directly in the calculation of the contribution rate and amortization period. The actuarial value of assets is equal to the expected asset value based on the assumed interest rate of 7.5% plus 25% of the difference between the actual market value and the expected asset value.

The change in the actuarial value of assets from June 30, 2003 to June 30, 2004 (which also excludes the FED reserve account) is shown below:

		Actuarial Value ($M)
Actuarial Assets, June 30, 2003	$	**16,120**
• Employer and Member Contributions	+	507
• Benefit Payments and Refunds	-	798
• Expected Investment Income* (Based on 7.5% assumption)	+	1,198
• Investment Gain/(Loss)	-	75
Actuarial Assets, June 30, 2004 Before FED Transfer	$	**16,952**
• FED Transfer Payable January 15, 2005	-	0
Actuarial Assets, June 30, 2004 After FED Transfer	$	**16,952**

*net of expenses

The dollar-weighted rate of return, net of investment and administrative expenses, measured on the actuarial value of assets was 7.03%. Due to the use of an asset smoothing method, there is currently $226 million of deferred actuarial investment loss that has not yet been recognized in the valuation process. Absent investment returns above the 7.5% assumption in the next few years, the deferred actuarial investment loss will gradually be reflected in the actuarial value of assets. As this occurs through the smoothing method, the valuation results will reflect an actuarial loss on investment experience, which will contribute toward an increase in the unfunded actuarial liability.

The summary of market and actuarial value of assets by group (after the transfer of the airport firefighters to Special Services Group 2) as of June 30, 2004 is shown below:

($Millions excluding FED Reserve)	**General Membership**	**Special Services 1**	**Special Services 2**	**Total**
Actuarial Value	$16,185	$260	$507	$16,952
Market Value	$15,962	$258	$506	$16,726
Difference	$223	$2	$1	$226
Actuarial/Market Value	101%	100%	100%	101%

A historical comparison of asset values on both the market and actuarial basis is shown below:

($Millions excluding FED Reserve)	**June 30**				
	2000	**2001**	**2002**	**2003**	**2004**
Actuarial Value of Assets	$14,145	$15,112	$15,613	$16,120	$16,952
Market Value of Assets	$16,474	$15,358	$14,388	$14,916	$16,726
Deferred (Gain)/Loss	($2,329)	($246)	$1,225	$1,204	$226
Actuarial Value/Market Value	86%	98%	109%	108%	101%

Strong market returns in the last year have substantially reduced the amount of the deferred actuarial investment losses that were present in the prior two valuations. The deferred actuarial investment loss that still remains will be gradually recognized over the coming years, absent favorable experience to offset it.

LIABILITIES

The actuarial liability is that portion of the present value of future benefits that will not be paid by future normal costs. The difference between this liability and the actuarial value of assets at the same date is called the unfunded actuarial liability (UAL). The dollar amount of unfunded actuarial liability is reduced if the contributions to the System exceed the normal cost for the year plus interest on the prior year's UAL.

The unfunded actuarial liability by group is shown as of June 30, 2004 below:

($Millions)	General Membership	Special Services 1	Special Services 2	Total
Actuarial Liability	$18,377	$269	$482	$19,128
Actuarial Value of Assets	16,185	260	507	16,952
Unfunded Actuarial Liability	2,192	9	(25)	2,176

See Exhibits 7 and 8 in Section III of the report for the detailed development of the unfunded actuarial liability for the System.

Actuarial gains (losses) result from actual experience that is more (less) favorable than anticipated based on the actuarial assumptions. These "experience" (or actuarial) gains or losses are reflected in the UAL and are measured as the difference between the expected unfunded actuarial liability and the actual unfunded actuarial liability, taking into account any changes due to assumption or benefit provision changes. Overall, the System experienced a net actuarial loss of $157 million (see Exhibit 9 for a detailed development).

The actuarial loss may be explained by considering the separate experience of assets and liabilities. As noted in the previous section, assets had a $75 million dollar loss when measured on an actuarial value basis. The liability loss is $82 million (or about 0.4% of total actuarial liability) and arises from demographic experience less favorable than anticipated by the actuarial assumptions. A significant source of the liability loss was retirement experience. While the number of retirements was less than expected, the individuals who retired had higher than average liabilities, resulting in the loss.

Legislation passed during the 2004 Session changed the eligibility for unreduced retirement benefits for Special Services Group 1, from age 55 with 22 years of service to age 50 with 22 years of service. This change is phased in over a four year period beginning July 1, 2004. The cost of this benefit enhancement is paid entirely by Special Services Group 1 by an increase in the contribution rate for this group.

The change in the unfunded actuarial liability between June 30, 2003 and 2004 is shown below (in millions):

Unfunded Actuarial Liability, June 30, 2003	$	1,867
• Expected increase from amortization method	+	36
• Expected increase from contributions below actuarial rate	+	87
• Investment experience	+	75
• Liability and other experience	+	82
• Benefit enhancements (Special Services Group 1)	+	29
• Change in actuarial assumptions	+	0
Unfunded Actuarial Liability before FED transfer, June 30, 2004	$	2,176
• FED Transfer	+	0
Unfunded Actuarial Liability after FED transfer, June 30, 2004	$	2,176

There are three different measurements of liabilities discussed in this section.

- ***Actuarial Balance Sheet Liability*** is the present value of all future benefits (PVFB) expected to be paid from the System to current members (retired, active and deferred vested). This liability is calculated based on both future payroll projections and service credits to retirement or other separation from service.
- ***Actuarial Liability*** is the portion of the present value of future benefits (actuarial balance sheet liability) that will not be paid by future normal costs. It is also defined as the portion of the actuarial balance sheet liability allocated to service before the valuation date by the actuarial cost method.
- ***Present Value of Accrued Benefits (PVAB)*** is used only for informational purposes. It does not directly impact the contribution rate or amortization period for the System. This liability represents the present value of benefits earned to date, based on service and salary as of the valuation date. The PVAB can be used as a measure of the funded status of the System since it more closely represents the amount required to pay all accrued benefits if the fund were to liquidate on the measurement date. In a well-funded System, the expectation would be that the assets would be equal to or exceed the PVAB.

Each liability measurement discussed above is used for a different purpose. Therefore, the relative importance of the measurement will depend on the perspective of the person using the information. From an actuarial viewpoint, the actuarial balance sheet liability and the actuarial liability are the most critical because, along with the actuarial value of assets, they ultimately determine whether the statutory contribution rate for the System is sufficient to fund the current benefit structure, within the parameters set out in IPERS' Funding Policy. The other liability figures are valuable because they provide useful comparisons of assets and liabilities.

The System liabilities as of June 30, 2004 and June 30, 2003 are summarized below:

	June 30	
($ Millions)	**2004**	**2003**
Actuarial Balance Sheet Liability (PVFB)	$23,356	$22,109
Actuarial Liability	$19,128	$17,987
Present Value of Accrued Benefits (PVAB)	$15,378	$14,338

CONTRIBUTION RATE

The Iowa statutes provide that most IPERS members (general members who represent 96% of total active members) shall contribute 3.7% of pay and employers shall contribute 5.75%, for a total of 9.45%. The remaining 4% of the active members, the Special Services groups, contribute at an actuarially determined rate that changes each year.

IPERS adopted its Funding Policy in 1996 (see Appendix D for a copy of the Funding Policy). The purpose of the Funding Policy is to provide a basis for the evaluation of the System's funded status and to provide a set of safeguards to help ensure the financial solvency of the System. The Funding Policy defines the term "fully funded" to mean the current actuarial value of assets plus the present value of future expected contributions is equal to or greater than the present value of future benefit payments. There is an additional requirement that the amortization period not exceed 30 years in order for the System to be "fully funded".

One of the purposes of the actuarial valuation is to determine whether the contribution rate for the general membership will be sufficient to fund the future benefits expected to be paid by the System within the guidelines established in IPERS' Funding Policy. The statutory contribution rate is first applied to fund the normal cost rate. The remaining contribution rate is used to amortize the unfunded actuarial liability (UAL) as a level percentage of payroll, which in turn determines the amortization period. As a result, the remaining amortization period varies with each actuarial valuation. Because the normal cost rate for the general membership (9.09%) is so close to the statutory contribution rate of 9.45%, the remaining 0.36% of payroll available for payment toward the UAL is very small. Based on the current UAL amount and amortization payment, the amortization period is infinite. In order for the System to be "fully funded" in the current valuation (the amortization period to be 30 years), the resulting contribution rate would increase by 1.97% to 11.42% of payroll. This rate is determined based on the snapshot of the System taken on the valuation date, June 30, 2004, and applies only for the fiscal year beginning July 1, 2005. The rate necessary for the System to continue to be "fully funded" in future years will change each year as the deferred actuarial investment losses are recognized and other experience (both investment and demographic) impacts the System. The Asset/Liability Study completed last year indicated that, in order to reach a 30 year amortization of the UAL by 2014 (and not to exceed that limit thereafter), a contribution rate of 13.25% effective July 1, 2005 would be necessary. This is a better long term estimate of the level of contributions necessary to fund the System in accordance with the Funding Policy.

When the current actuarial value of assets plus the present value of future expected contributions are not equal to the present value of future benefits for the current membership, the System is not in "actuarial balance". IPERS' Funding Policy provides a set of criteria to assist in deciding whether an increase in the contribution rate should be considered. If either of the following occurs in at least three of any five consecutive years, the Funding Policy recommends a contribution increase be considered:

(1) the normal cost rate is within 0.50% of the statutory contribution rate of 9.45% (which occurred in the 2002, 2003, and 2004 valuations).

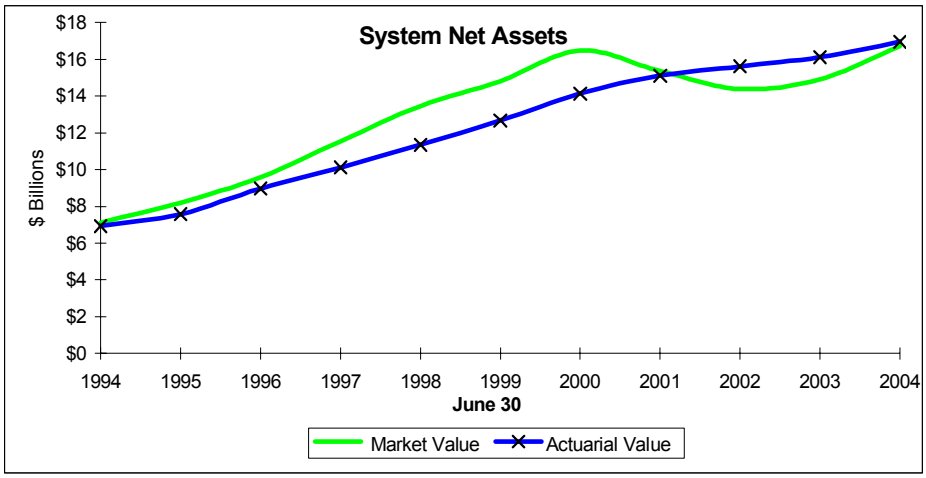
(2) the amortization period exceeds 29 years (which occurred in the 2001, 2002, 2003, and 2004 valuations).

Based on the criteria in the Funding Policy, consideration should be given to increasing the statutory contribution rate. The Asset/Liability Study completed in September 2003 confirmed the long term funding concerns for IPERS. Based on capital market assumptions developed by Wilshire Associates, stochastic modeling was performed over a thirty year period. The results indicated that, absent changes in benefits or contributions, there is about a 75% probability that the System's funded ratio would steadily decline and the actuarial contribution rate (based on 30 year amortization of any UAL) would steadily increase. While the most recent year's asset returns exceeded the assumed rate, the long-term situation has not changed materially.

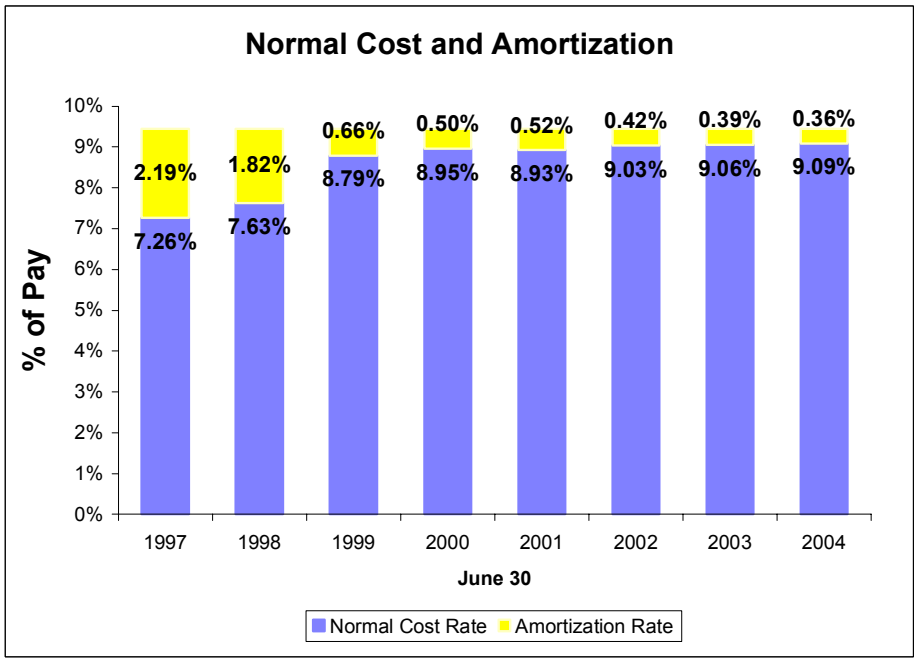
The fact that the System is not in actuarial balance does not create an immediate funding concern for the System. System assets are sufficient to make future projected benefit payments for many years. The shortfall between assets and liabilities that is indicated by this year's valuation is a long term funding issue. However, as the results of the Asset/Liability Study indicated, neither time nor optimistic investment returns are likely to resolve the long term funding issues. It is in the System's best interest for changes in contributions or benefits to be made sooner instead of later. Furthermore, making the changes earlier allows them to be less severe and costly.

COMPARISON OF MAJOR VALUATION RESULTS

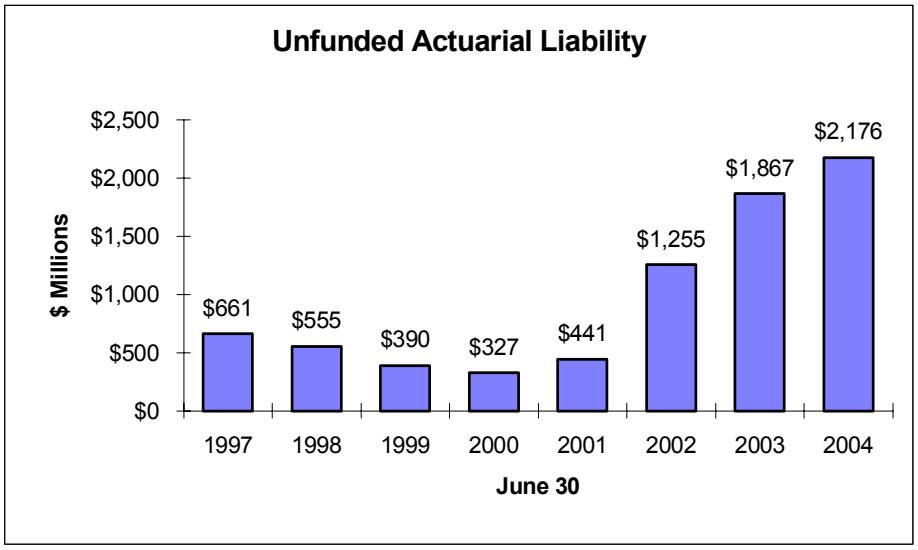
The major findings of the 2004 valuation compared with prior valuation results are summarized and compared on the following pages.



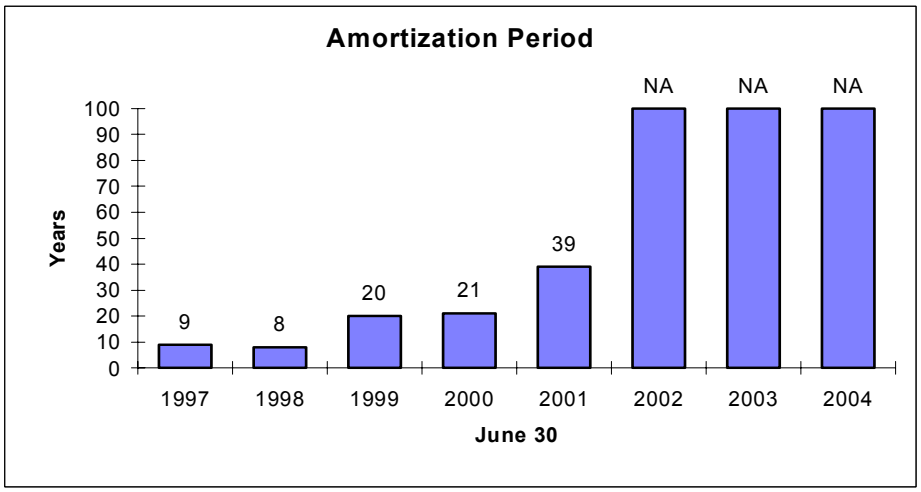
Investment return in excess of the actuarial assumption for FY2004 has narrowed the gap between the actuarial and market values. Currently the actuarial value exceeds the market value of assets by $226 million. Absent investment gains in the next few years, the deferred losses will flow through to the actuarial value of assets.



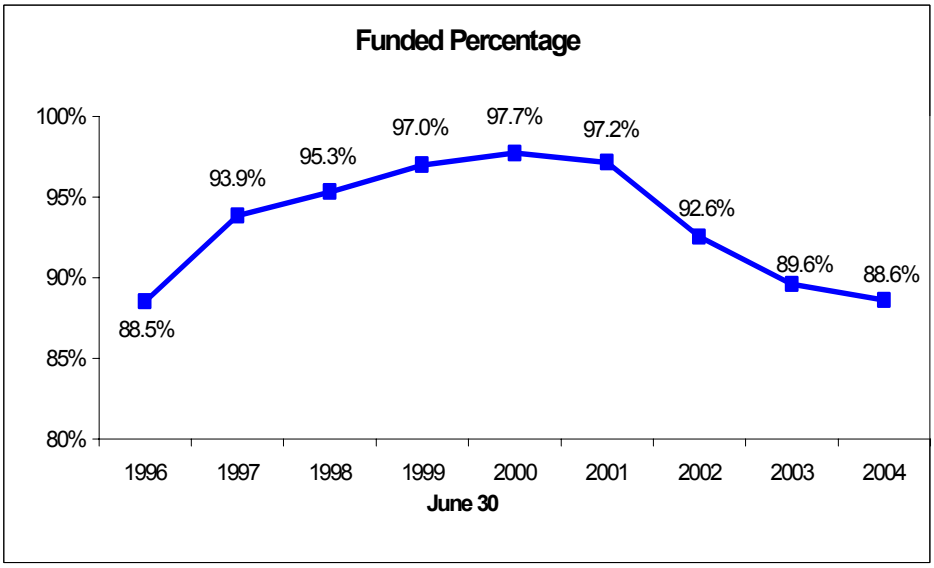
Over the years, the normal cost rate has increased due to assumption changes, benefit improvements and demographic changes. As a result, the UAL payment has been reduced to a small part of the total contribution rate.



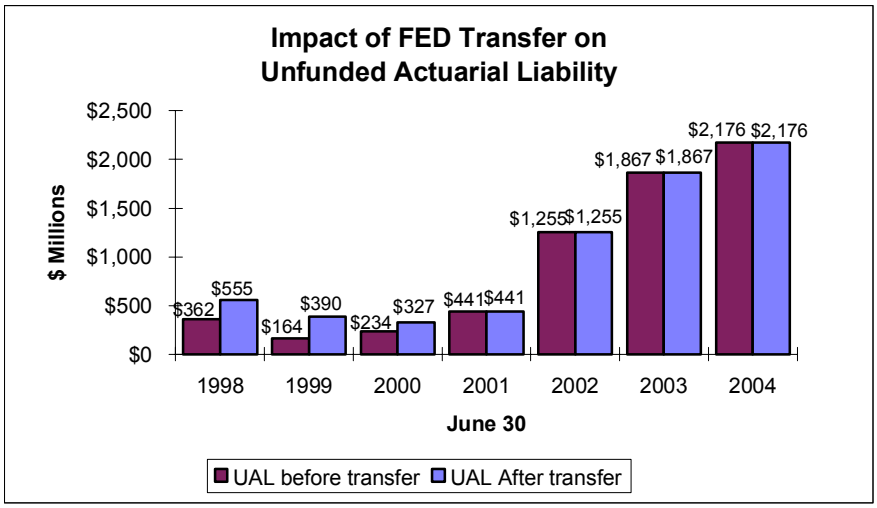
The unfunded actuarial liability reflects both asset and liability experience as well as changes due to benefit enhancements or changes in actuarial assumptions. The large increase in 2002 was the combined impact of an experience loss on assets and liabilities coupled with an increase due to assumption changes. Increases in 2003 and 2004 reflected an experience loss on both assets and liabilities.



The amortization period reflects the size of the UAL as well as the decrease in the UAL payment due to increases in the normal cost rate. Since the 2002 valuation, the years to amortize has been infinite.



The funded ratio for IPERS increased prior to 2000 as a result of strong asset returns. Since then, investment returns on the actuarial value of assets below the assumed rate of 7.5% and growth in the liabilities combined to lower the funded ratio.



The law provides for a portion of the favorable experience to be used to fund the FED Reserve. The amount transferred is dependent upon the funded status of IPERS. When such a transfer occurs, there is an increase in the unfunded actuarial liability. No transfer has occurred in the last four years.

SUMMARY

IPERS, like many retirement plans in the United States (both public and private) is still feeling the impact of three years of record low market returns in 2001, 2002 and 2003. This, coupled with negative demographic experience and a change in actuarial assumptions in 2002 that increased liabilities, significantly increased the unfunded actuarial liability (UAL) of the System. For most members, IPERS is funded by a fixed (statutory) contribution rate of 9.45%. Given the small (0.36%) difference between the 9.45% statutory rate and the 9.09% normal cost rate (cost allocated to the current year of service worked by active members), the unfunded actuarial liability cannot be amortized. Despite unfavorable experience on both the actuarial value of assets and the liability side, the System remains nearly 90% funded. If the contribution rate were determined in this year's valuation with an amortization period of 30 years (which is the requirement in IPERS' Funding Policy for the System to be "fully funded"), the contribution rate would be 11.42% of payroll. This rate is determined based on the snapshot of the System taken on the valuation date, June 30, 2004, and applies only for the fiscal year beginning July 1, 2005. The rate necessary for the System to continue to be "fully funded" in future years will change each year as the deferred actuarial investment losses are recognized and other experience (both investment and demographic) impacts the System. The Asset/Liability Study completed last year indicated that, in order to reach a 30 year amortization of the UAL by 2014 (and not to exceed that limit thereafter), a contribution rate of 13.25%, effective July 1, 2005, would be necessary. This is a better long term estimate of the level of contributions necessary to fund the System in accordance with the Funding Policy than the actuarial rate from the current valuation.

The System faces challenges similar to other large retirement systems. Like most large Systems, IPERS uses an asset smoothing method. This methodology delays recognition of investment gains and losses on a fair (market) value basis. If there is a net deferred actuarial investment gain, the actuarial value of assets will be less than the fair market value and the funded status will improve in the future if experience follows the assumptions. On the other hand, if there is a net deferred actuarial investment loss, the actuarial value of assets will be greater than the fair market value, and the funded status will decline over time if experience follows the assumptions. Due to an investment return of nearly 14% for FY2004, the current deferred actuarial investment loss for IPERS is $226 million. This is significantly lower than the amount in last year's valuation ($1.2 billion). The large difference that existed in the past two valuations has been substantially reduced, mitigating some of the immediate negative impact on the funded status of the System. However, the small portion of the total contribution rate that is available to pay off the unfunded actuarial liability makes it nearly impossible for the System to pay off the UAL over any reasonable time period without an increase in future contributions.

We conclude this executive summary by providing certain historical and comparative information for the System. The following page reflects recent historical impacts on IPERS' unfunded actuarial liability. The final page of this executive summary presents comparative statistics and actuarial information on both the June 30, 2004 and June 30, 2003 valuations. All figures shown include the general membership and the two Special Services Groups.

SUMMARY OF HISTORICAL CHANGE
IN
IPERS UNFUNDED ACTUARIAL LIABILITY

($Millions)	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	Total
Unfunded Actuarial Liability (BOY[1])	661	555	390	327	441	1,255	1,867	N/A
• **Expected Change**	(43)	(37)	(32)	(22)	3	85	123	77
• **Investment Experience**	(716)	(730)	(781)	(81)	409	402	75	(1,422)
• **Liability and Other Experience**	118	(211)	515	217	258	125	82	1,104
• **Benefit Enhancements**	342	0	142	0	3	0	29	516
• **Change in Assumptions**	0	587	0	0	141	0	0	728
• **FED Transfer**	193	226	93	0	0	0	0	512
Unfunded Actuarial Liability (EOY[2])	555	390	327	441	1,255	1,867	2,176	N/A
Amortization Years	8	20	21	39	*	*	*	

*Infinite
1 = Beginning of Year
2 = End of Year

IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
PRINCIPAL RESULTS

	June 30, 2004	June 30, 2003	% Chg
SYSTEM MEMBERSHIP			
1. Active Membership			
- Number of Members			
(excluding Retired/Reemployed)	160,003	159,310	0.4
- Projected Payroll for Upcoming Fiscal Year	$5,293M	$5,090M	4.0
- Average Salary	$33,082	$31,950	3.5
2. Inactive Membership			
- Number Not in Pay Status	103,129	104,304	-1.1
- Number of Retirees/Beneficiaries	76,782	74,128	3.6
- Average Annual Benefit	$9,787	$9,399	4.1
ASSETS AND LIABILITIES			
1. Net Assets (excluding FED reserve)			
- Market Value	$16,726M	$14,916M	12.1
- Actuarial Value	16,952M	16,120M	5.2
2. Projected Liabilities			
- Retired Members	$7,255M	$6,714M	8.1
- Inactive Members	439M	450M	-2.4
- Active Members	15,662M	14,945M	4.8
- Total Liability	23,356M	22,109M	5.6
3. Actuarial Liability	$19,128M	$17,987M	6.3
4. Unfunded Actuarial Liability	$2,176M	$1,867M	16.6
5. Funded Ratio			
(Actuarial Value Assets/Actuarial Liability)	88.62%	89.62%	-1.1
SYSTEM CONTRIBUTIONS			
Statutory Contribution Rate*	9.45%	9.45%	0.0
Years Required to Amortize Unfunded Actuarial Liability	Infinite	Infinite	N/A

M = ($)Millions

* Contribution for certain special groups (4% of the membership) are not fixed at 9.45% but are actuarially determined each year.

SECTION II

SYSTEM ASSETS

SECTION II

SYSTEM ASSETS

In this section, the values assigned to the assets held by the System are presented. These assets are valued on two different bases: the market value and the actuarial value.

Market Value of Net Assets

For certain accounting statement purposes, System assets are valued at current market rates. These values represent the "snapshot" or "cash-out" value of System assets as of the valuation date. In addition, the market value of assets provides a reference point to compare to various liability calculations.

Actuarial Value of Net Assets

The market value of assets, representing a "cash-out" value of System assets, may not necessarily be the best measure of the System's ongoing ability to meet its obligations.

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens volatility in the market value while still indirectly recognizing market value. The specific technique follows:

Step 1: Determine the expected value of plan assets at the current valuation date using the actuarial assumption for investment return and the actual receipts and disbursements of the fund for the previous 12 months.

Step 2: Subtract the expected value determined in Step 1 from the total market value of the Fund at the current valuation date.

Step 3: Multiply the difference between market and expected values determined in Step 2 by 25%.

Step 4: Add the expected value of Step 1 and the product of Step 3 to determine the actuarial value of assets.

Information regarding the actuarial and market values of System assets as of June 30, 2004 is presented on the following pages:

EXHIBIT 1

ANALYSIS OF NET ASSETS AT MARKET VALUES

($ Millions)

	June 30, 2004		June 30, 2003	
	Amount	% of Total	Amount	% of Total
Cash & Equivalents	$68	0.4%	$134	0.9%
Capital Assets, Receivables and Payables	(2,461)	(14.3)	(1,906)	(12.4)
Domestic Equity	5,893	34.2	4,567	29.7
International Equity	2,688	15.6	2,363	15.3
Global Fixed Income	7,230	41.9	6,156	40.0
Tactical Asset Funds*	0	0.0	777	5.0
Real Estate Funds	1,045	6.1	916	5.9
Private Equity/Debt	1,050	6.1	934	6.1
Collateral Pool	1,737	10.1	1,462	9.5
TOTAL ASSETS	$17,250	100.0%	$15,403	100.0%
FED Reserve (Before current year transfer)	524		487	
Current Year FED Transfer Payable	0		0	
Net Retirement System Assets	$16,726		$14,916	

Allocation of Net Assets:	
General Membership	$ 15,962
Special Services Group 1	258
Special Services Group 2	506
Total Net Assets	$ 16,726

*Tactical Asset class closed October, 2003.

EXHIBIT 2
SUMMARY OF FUND ACTIVITY
(Market Value)

	General Membership	Special Service Group 1 *	Special Service Group 2 **	FED Reserve	Total
NET RETIREMENT SYSTEM ASSETS ON JUNE 30, 2003	$14,260,803,500	$231,113,491	$424,024,555	$487,259,361	$15,403,200,907
REVENUE					
FED Transfer	-	-	-	-	-
Employer contributions	279,167,801	5,488,239	14,267,627	-	298,923,667
Member contributions	179,641,121	3,661,424	9,505,433	-	192,807,978
Service purchase	14,359,491	141,432	402,543	-	14,903,466
Investment income	2,044,023,737	33,790,992	62,281,436	68,465,409	2,208,561,574
Total Revenue	$2,517,192,150	$43,082,087	$86,457,039	$68,465,409	$2,715,196,685
DISBURSEMENTS					
Benefit payments	745,572,638	5,865,852	10,360,466	31,067,817	792,866,773
Member and employer refunds	33,643,116	743,172	2,043,723	-	36,430,011
Administrative expense	7,787,673	43,778	128,150	-	7,959,601
Investment expense	28,898,141	477,733	880,527	967,955	31,224,356
Total Expenses	$815,901,568	$7,130,535	$13,412,866	$32,035,772	$868,480,741
NET RETIREMENT SYSTEM ASSETS ON JUNE 30, 2004	$15,962,094,082	$267,065,043	$497,068,728	$523,688,998	$17,249,916,851
DISTRIBUTION TO FED ON JANUARY 2005	$0	$0	$0	$0	$0
Transfer of Airport Firefighters	$0	($8,510,562)	$8,510,562	$0	$0
ADJUSTED ASSETS ON JUNE 30, 2004	$15,962,094,082	$258,554,481	$505,579,290	$523,688,998	$17,249,916,851

* Includes Sheriffs and Deputies

** Includes all other public safety members

EXHIBIT 3

ACTUARIAL VALUE OF NET ASSETS

	General Membership	Special Service Group 1 *	Special Service Group 2 **	Total
1. Actuarial Value of Assets as of June 30, 2003	$15,419,653,610	$247,323,171	$453,499,230	$16,120,476,011
2. Actual Receipts/Disbursements				
a. Contributions	473,168,413	9,291,095	24,175,603	506,635,111
b. Benefit Payments and Refunds	779,215,754	6,609,024	12,404,189	798,228,967
c. Net Change	(306,047,341)	2,682,071	11,771,414	(291,593,856)
3. Expected Value of Assets as of June 30, 2004 [(1) x 1.075] + [(2c) x $(1.075)^{.5}$]	16,258,810,994	268,653,239	499,716,534	17,027,180,767
4. Market Value of Assets as of June 30, 2004 Before Transfers	15,962,094,082	267,065,043	497,068,728	16,726,227,853
5. Difference Between Market and Expected Values (4) - (3)	(296,716,912)	(1,588,196)	(2,647,806)	(300,952,914)
6. Actuarial Value of Assets as of June 30, 2004 (3) + [(5) x 25%]	16,184,631,766	268,256,190	499,054,583	16,951,942,539
7. Adjustment for Transfer to the Favorable Experience Dividend Reserve Account	0	0	0	0
8. Transfer of Airport Firefighters	0	(8,548,520)	8,548,520	0
9. Actuarial Value of Assets for June 30, 2004 Actuarial Valuation	$16,184,631,766	$259,707,670	$507,603,103	$16,951,942,539

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXHIBIT 4
HISTORICAL COMPARISON (ACTUARIAL AND MARKET)

Value as of June 30		Actuarial Value of Net Assets (AVA)	Market Value of Net Assets (MVA)	AVA/MVA
1994		6,926,678,212	7,126,124,256	97%
1995		7,574,159,776	8,199,217,051	92%
1996	*	8,975,396,251	9,587,104,982	94%
1997		10,112,976,077	11,533,968,923	88%
1998	**	11,352,674,142	13,463,899,832	84%
1999	**	12,664,031,437	14,814,311,451	85%
2000	**	14,145,141,535	16,473,516,141	86%
2001		15,112,424,729	15,357,519,356	98%
2002		15,613,114,099	14,387,799,637	109%
2003		16,120,476,011	14,915,941,546	108%
2004		16,951,942,539	16,726,227,853	101%

Values are for combined general membership and special service groups but exclude the Favorable Experience Dividend Reserve Account.

*In order to implement the new asset valuation method, the June 30, 1995 actuarial value of assets was revised to the actual market value on that date.

**Reflects reduction for transfers to the Favorable Experience Dividend Reserve Account.

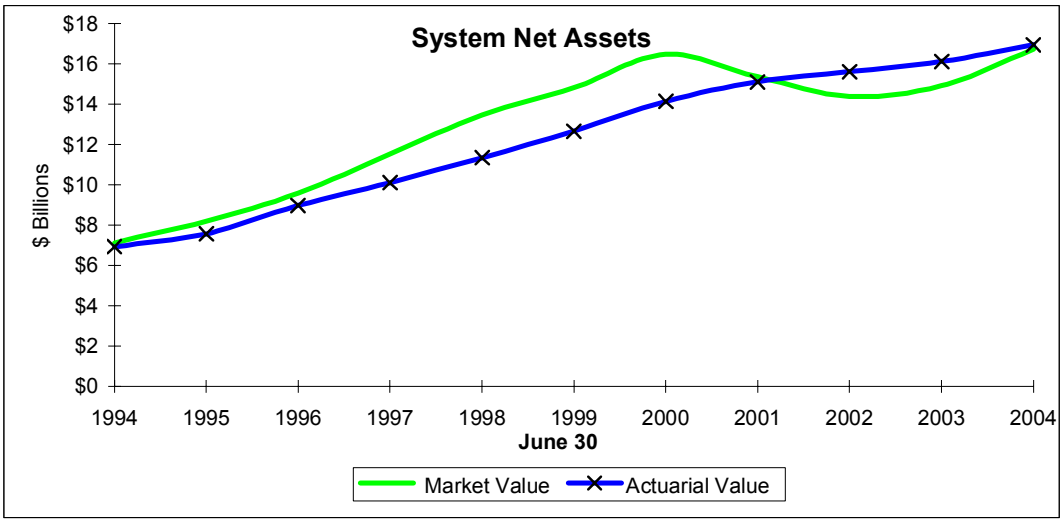


EXHIBIT 5

SUMMARY OF FAVORABLE EXPERIENCE DIVIDEND RESERVE

Market Value of FED Reserve as of June 30, 2004	$	523,688,998
Transfer to FED Payable on January 15, 2005 Based on June 30, 2004 Valuation Results	$	0
Total Value of FED Reserve as of June 30, 2004	$	523,688,998

Payments to retirees from the FED reserve account are not a guaranteed benefit. The System Administration determines each year whether payments will be made and the percentage multiplier factor to be used for each year of retirement, up to the maximum 3% allowed by law. Factors considered by the Administration in this determination include, but are not limited to, the current value of the FED reserve account, past year payments from the reserve, the likelihood of future credits to and payments from the reserve, and distributions paid as a dividend under 97B.49F1.

Based on the June 30, 2004 balance in the FED reserve and assuming (1) a 7.5% rate of return on the market value of assets in the future and (2) all other assumptions are exactly met, the FED reserve is projected to be sufficient to make payments through the dates shown below.

Estimated Potential Payments (in millions) from the FED on January 31:

	Maximum*	Expected**
2005	$103.7	$37.0
2006	123.2	44.0
2007	144.6	51.6
2008	167.8	59.9
2009	90.4 ***	68.9
2010	-	78.8
2011	-	89.4
2012	-	100.9
2013	-	113.2
2014	-	126.3
2015	-	43.3 ***

* Based on the maximum payment of 3% for each year since retirement.

** Based on 1.07% for each year since retirement.

*** Payment is equal to the remaining FED reserve balance.

SECTION III

SYSTEM LIABILITIES

SECTION III

SYSTEM LIABILITIES

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. There are several methods used to allocate the cost of benefits to members' working lifetimes. These mathematical techniques are called actuarial cost methods.

The method used for this valuation is referred to as the "entry age normal" actuarial cost method. Under this method, a contribution that is a level percent of pay is determined for each member, which if paid from date of hire to retirement date, will finance all future benefit payments. The level percent of pay that is developed is called the **"normal cost"**. The sum of the individual normal cost dollar amounts is divided by covered payroll to determine the normal cost rate for the System.

The actuarial accrued liability is that portion of the total liability or present value of future benefits (PVFB) that will not be paid by future normal costs. The difference between this liability and the actuarial value of assets as of the same date is referred to as the **unfunded actuarial liability (UAL).** If contributions exceed the normal cost for the year, after allowing for interest on the previous balance of the UAL, this liability will be reduced. Benefit improvements, experience gains and losses, and changes in actuarial assumptions or procedures will also have an effect on the total actuarial liability and on the portion of it that is unfunded.

Once the amount of the UAL has been calculated, the period over which the current statutory contribution rate (less the normal cost rate) will amortize the UAL is determined.

On the following pages we have summarized, as of June 30, 2004, various measurements of liability. It is important to note that the actuarial liability differs from the present value of accrued benefits (PVAB) and the pension benefit obligation (PBO). The actuarial liability is determined for funding purposes and includes some element of future pay increases and service credits. The PVAB represents the value of the benefits accrued as of the valuation date, assuming each member terminates employment at that time. As a result, there are no projections of future salary increases and service credits in these figures. Finally, the PBO value differs from the PVAB value in that while service accruals are similarly frozen, anticipated future salary increases are reflected.

The tables in this section present System liabilities as follows:

EXHIBIT 6

PRESENT VALUE OF FUTURE BENEFITS
as of June 30, 2004

The actuarial present value of future benefits represents the current value of benefits expected to ultimately be earned by the current members of the System as of the valuation date.

Present Value of Future Benefits:	General Membership	Special Service Group 1 *	Special Service Group 2 **	Total
Active Members				
Retirement benefits	$13,262,333,614	$206,098,567	$283,782,481	$13,752,214,662
Death benefits	185,063,621	4,392,369	13,466,000	202,921,990
Termination benefits	890,501,305	32,447,830	96,682,588	1,019,631,723
Disability benefits	417,048,689	61,984,789	207,970,622	687,004,100
Inactive Members				
Vested members	391,813,342	5,903,024	11,815,367	409,531,733
Nonvested members	29,014,202	128,010	454,000	29,596,212
Retired Members and Beneficiaries	7,097,083,773	52,891,601	105,306,931	7,255,282,305
Total Present Value of Future Benefits	$22,272,858,546	$363,846,190	$719,477,989	$23,356,182,725

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXHIBIT 7

UNFUNDED ACTUARIAL LIABILITY
as of June 30, 2004

	General Membership	Special Services Group 1 *	Special Services Group 2 **	Total
1. Present Value of Future Benefits	$22,272,858,546	$363,846,190	$719,477,989	$23,356,182,725
2. Present Value of Future Normal Costs	3,895,670,656	95,054,580	237,046,883	4,227,772,119
3. Actuarial Liability (1) - (2)	18,377,187,890	268,791,610	482,431,106	19,128,410,606
4. Actuarial Value of Net Assets	16,184,631,766	259,707,670	507,603,103	16,951,942,539
5. Unfunded Actuarial Liability (3) - (4)	2,192,556,124	9,083,940	(25,171,997)	2,176,468,067

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXHIBIT 8

DEVELOPMENT OF AMOUNT TO BE TRANSFERRED TO THE FAVORABLE EXPERIENCE DIVIDEND RESERVE
Based on the June 30, 2004 Actuarial Valuation

1. June 30, 2003 Unfunded Actuarial Liability	$	1,866,898,949
2. Normal Cost as of June 30, 2003		458,624,759
3. Employer and Member Contributions *		491,731,645
4. Increase due to assumption changes		0
5. Increase due to plan amendments		28,891,877
6. Expected Unfunded Actuarial Liability as of June 30, 2004 $[(1) + (2)] * 1.075 - [(3) * (1.075)^{.5}] + (4) + (5)$		2,018,991,642
7. Actual Unfunded Actuarial Liability as of June 30, 2004		2,176,468,067
8. (Gain)/loss (7)-(6)		157,476,425
9. Portion of gain to transfer to FED		N/A
10. Amount of Actuarial Value of Assets to transfer to FED	$	0
11. Market value of FED transfer	$	0

* Does not include service purchases

EXHIBIT 9

PRESENT VALUE OF ACCRUED BENEFITS
as of June 30, 2004

The actuarial present value of accrued benefits represents the value of benefits earned as of the valuation date, based on service and salary to date. This is equivalent to assuming each member terminates employment on the valuation date.

	General Membership	Special Services Group 1 *	Special Services Group 2 **	Total
1. Present value of vested accrued benefits for active plan members	$ 7,175,452,014	$ 169,561,932	$ 294,477,109	$ 7,639,491,055
Present value of vested benefits being paid to plan retirees and beneficiaries	7,097,083,773	52,891,601	105,306,931	7,255,282,305
Present value of vested benefits to terminated plan members not yet in pay status (deferred vested)	391,813,342	5,903,024	11,815,367	409,531,733
Accumulated employee account balance of nonvested inactive members	29,014,202	128,010	454,000	29,596,212
Total present value of vested accrued benefits	$ 14,693,363,331	$ 228,484,567	$ 412,053,407	$ 15,333,901,305
2. Present value of nonvested accrued benefits	41,338,929	680,142	1,994,251	44,013,322
3. Total present value of all accrued benefits	$ 14,734,702,260	$ 229,164,709	$ 414,047,658	$ 15,377,914,627

* Includes Sheriffs and Deputies
** Includes all other public safety members

SECTION IV

SYSTEM CONTRIBUTIONS

SECTION IV

SYSTEM CONTRIBUTIONS

Under the funding method described in Appendix C, the contribution rate consists of two elements: the normal cost rate and the contribution rate to amortize the unfunded actuarial liability as a level percent of payroll. The unfunded actuarial liability represents the difference between the portion of the present value of future benefits allocated to service credited prior to the valuation date by the actuarial cost method and the actuarial value of assets as of that date.

In the following pages, we present information on System contributions as follows:

EXHIBIT 10

ACTUARIAL BALANCE SHEET
as of June 30, 2004

	General Membership	Special Services Group 1 *	Special Services Group 2 **	Total
ASSETS				
Actuarial value of assets	$16,184,631,766	$259,707,670	$507,603,103	$16,951,942,539
Present value of future normal costs	3,895,670,656	95,054,580	237,046,883	4,227,772,119
Present value of future contributions to amortize unfunded actuarial liability	2,192,556,124	9,083,940	(25,171,997)	2,176,468,067
Total Net Assets	$22,272,858,546	$363,846,190	$719,477,989	$23,356,182,725
LIABILITIES				
Present Value of Future Benefits:				
Retired Members and Beneficiaries	$7,097,083,773	$52,891,601	$105,306,931	$7,255,282,305
Active Members	14,754,947,229	304,923,555	601,901,691	15,661,772,475
Inactive Members	420,827,544	6,031,034	12,269,367	439,127,945
Total Liabilities	$22,272,858,546	$363,846,190	$719,477,989	$23,356,182,725

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXHIBIT 11

ANALYSIS OF CONTRIBUTION RATE

The actuarial cost method used to determine the required level of annual contributions by the members and the employers to support the expected benefits is the Entry Age Normal Cost Method. Under this method, the total cost is comprised of the normal cost rate and the unfunded actuarial liability payment. The statutory contribution rate is first applied to payment of the normal cost rate. The remaining contribution is used to amortize the unfunded actuarial liability as a level percentage of payroll, which determines the period necessary to amortize the unfunded actuarial liability. According to IPERS Funding Policy, the System is considered to be "fully funded" if the amortization period does not exceed 30 years.

The contribution rate developed in this exhibit is based on the June 30, 2004 actuarial valuation and applies to the fiscal year beginning July 1, 2005.

		General Membership
1. (a) Normal Cost, Adjusted to Mid-year	$	456,606,986
(b) Expected Payroll for Members Under Assumed Retirement Age	$	5,024,558,222
(c) Normal Cost Rate (a) / (b)		9.09%
2. Unfunded Actuarial Liability at Valuation Date	$	2,192,556,124
3. Contribution Toward Unfunded Actuarial Liability (UAL)		0.36%
4. Expected Payroll for FYE 2005	$	5,049,372,050
5. UAL Contribution Adjusted to Mid-year (3) x (4) / (1.075).5	$	17,532,169
6. Amortization Factor (2) / (5)		125.05903
7. Amortization Period Necessary to Finance UAL as a Level Percent of Payroll at Contribution Rate Shown in (3)*		Cannot be amortized
8. Contribution Rate to Amortize UAL Over 30 Years*		11.42%

* Assuming all actuarial assumptions are met in the future.

EXHIBIT 12

CALCULATION OF CONTRIBUTION RATES FOR SPECIAL SERVICES GROUPS

The actuarial cost method used to determine the actuarial contribution rate to be paid by the members and the employers to support the expected benefits is the Entry Age Normal Cost Method. Under this method, the total cost is comprised of the normal cost rate plus the unfunded actuarial liability payment. The payment to amortize the unfunded actuarial liability is determined as a level percentage of payroll, with an amortization period of 30 years.

The contribution rate developed in this exhibit is based on the June 30, 2004 actuarial valuation and applies to the fiscal year beginning July 1, 2005.

		Special Services Group 1 *		Special Services Group 2 **
1. (a) Normal Cost, Adjusted to Mid-year	$	11,449,358	$	27,144,548
(b) Expected Payroll for Members Under Assumed Retirement Age	$	72,646,580	$	167,512,612
(c) Normal Cost Rate (a) / (b)		15.76%		16.20%
2. Unfunded Actuarial Liability at Valuation Date	$	9,083,940	$	(25,171,997)
3. Amortization Period to Fund the UAL as a Level Percent of Payroll		30 years		30 years
4. Amortization Factor		19.33574		19.33574
5. UAL Contribution Adjusted to Mid-year [(2) / (4)] x $(1.075)^5$	$	487,100	$	(1,349,774)
6. Expected Payroll for FYE 2005	$	76,310,240	$	167,512,612
7. Contribution Rate Toward the UAL (5) / (6)		0.64%		-0.81%
8. Total Contribution Rate Effective July 1, 2005 (1c) + (7)		16.40%		15.39%
Employer Contribution Rate		8.200% (50%)		9.234% (60%)
Employee Contribution Rate		8.200% (50%)		6.156% (40%)

* Includes Sheriffs and Deputies

** Includes all other public safety members

SECTION V

PLAN ACCOUNTING INFORMATION

SECTION V

PLAN ACCOUNTING INFORMATION

Historically, Government Accounting Standards Board (GASB) Statement No. 5, "Disclosure of Pension Information by Public Employee Retirement Systems and State and Local Government Employers", required the disclosure of the funded status of the Plan on an annual basis using the pension benefit obligation (PBO).

In an effort to enhance the understandability and usefulness of the pension information that is included in the financial reports of pension plans for state and local governments, the Governmental Accounting Standards Board (GASB) issued Statement No. 25 - Financial Reporting for Defined Benefit Pension Plans. This Statement, along with GASB Statement No. 27, supersedes GASB Statement No. 5.

GASB Statement No. 25, effective for fiscal years beginning after June 15, 1996, establishes financial reporting standards for defined benefit pension plans. In addition to two required statements regarding plan assets, the statement requires two schedules and accompanying notes disclosing information relative to the funded status of the plan and historical contribution patterns.

- The Schedule of Funding Progress provides information about whether the financial strength of the Plan is improving or deteriorating over time.
- The Schedule of Employer Contributions provides historical information about the annual required contribution (ARC) and the percentage of the ARC that was actually contributed.

EXHIBIT 13

SUMMARY OF MEMBERSHIP

	June 30, 2004	June 30, 2003
Active Employees:		
Vested	122,460	119,682
Not yet vested	37,543	39,628
Total active employees *	160,003	159,310
Retirees and beneficiaries currently receiving benefits:	76,782	74,128
Terminated employees entitled to benefits but not yet receiving them:	35,788	35,375

*Excludes retired/reemployed members

EXHIBIT 14

IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF FUNDING PROGRESS

In accordance with Statement No. 25 of the Governmental Accounting Standards Board

Actuarial Valuation Date	Net Actuarial Value of Assets (a)	Actuarial Liability (AL) (b)	Unfunded AL (UAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (P/R) (c)	UAL as a Percentage of Covered P/R [(b-a)/c]
6/30/96	8,975,396,251	10,136,356,814	1,160,960,563	88.55%	3,463,455,913	33.52%
6/30/97	10,112,976,077	10,774,216,472	661,240,395	93.86%	3,640,257,177	18.16%
6/30/98	11,352,674,142	11,907,220,417	554,546,275	95.34%	3,908,471,056	14.19%
6/30/99	12,664,031,437	13,053,655,753	389,624,316	97.02%	4,086,572,426	9.53%
6/30/00	14,145,141,535	14,471,650,757	326,509,222	97.74%	4,365,451,325	7.48%
6/30/01	15,112,424,729	15,553,379,304	440,954,575	97.16%	4,551,432,690	9.69%
6/30/02	15,613,114,099	16,868,559,185	1,255,445,086	92.56%	4,743,576,424	26.47%
6/30/03	16,120,476,011	17,987,374,960	1,866,898,949	89.62%	4,881,100,238	38.25%
6/30/04	16,951,942,539	19,128,410,606	2,176,468,067	88.62%	5,072,027,906	42.91%

Actuarial Assumptions: See Appendix C
Actuarial cost method: Entry age normal cost method
Amortization method: Open period, level percent of pay

EXHIBIT 15

IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ending	Actuarially Required Contributions	Percentage of ARC Contributed
6/30/98	$227,772,773	100.0%
6/30/99	244,933,066	100.0%
6/30/00	253,271,051	100.0%
6/30/01	268,315,094	100.0%
6/30/02	278,682,745	100.0%
6/30/03	289,772,054	99.2%
6/30/04	328,760,242	90.9% *

*Numbers are reported in aggregate for the total System membership. The corresponding number for each group is 90.3% for the general membership and 100.0% for both Special Services Group 1 and 2.

APPENDIX A

SUMMARY STATISTICS ON SYSTEM MEMBERSHIP

APPENDIX A

SUMMARY STATISTICS ON SYSTEM MEMBERSHIP

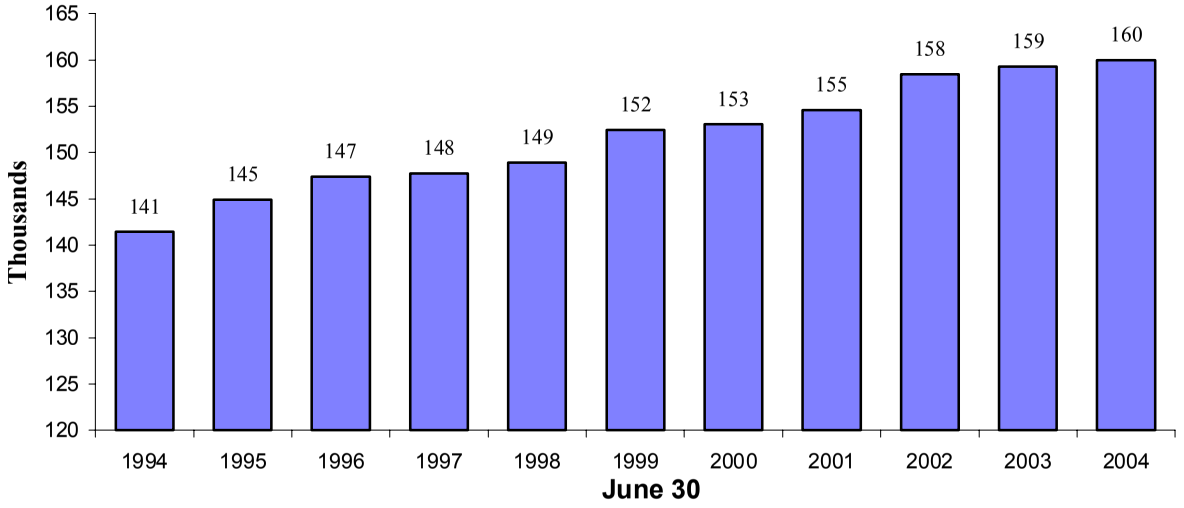
TABLE OF CONTENTS

SUMMARY OF ACTIVE MEMBERS

The data we received for the June 30, 2004 valuation contained information as of June 30, 2004.

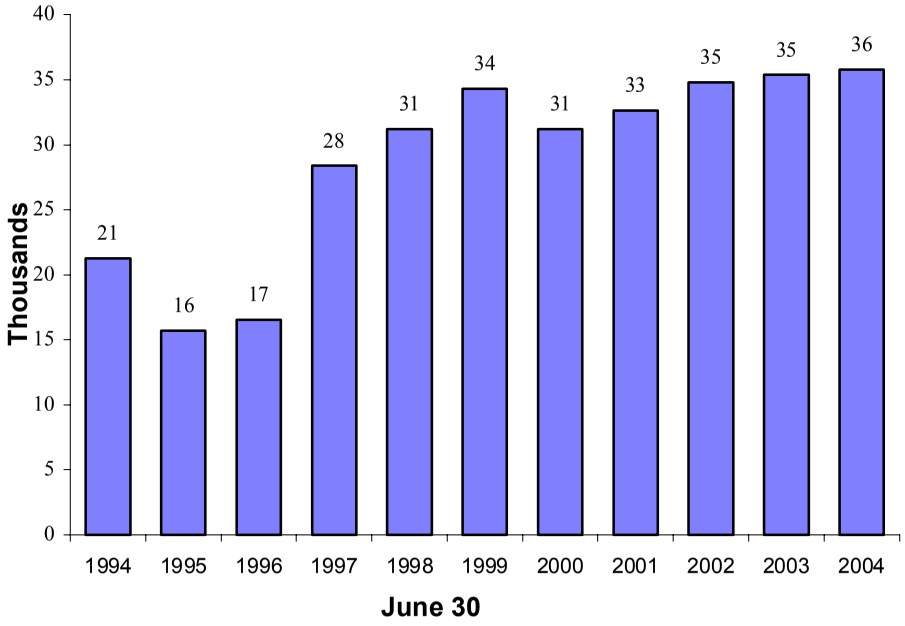
	General Membership	Special Service Groups Group 1	Special Service Groups Group 2	**Total 6/30/2004**	**Total 6/30/2003**	**Percent Change**
Total Employees	154,251	1,505	4,247	160,003	159,310	0.4
Projected Covered Payroll* (millions)	$5,049	$76	$168	$5,293	$5,090	4.0
Average Age	45.5	41.3	41.9	45.4	45.2	0.4
Average Entry Age	33.9	27.0	30.8	33.8	33.8	0.0
Average Earnings*	$32,735	$50,704	$39,443	$33,082	$31,950	3.5
Retired Reemployed	6,411	5	22	6,438	6,126	5.1

*Payroll figures as of June 30 are actual amounts paid during the prior fiscal year, increased by the assumed salary increase factor for the upcoming fiscal year.



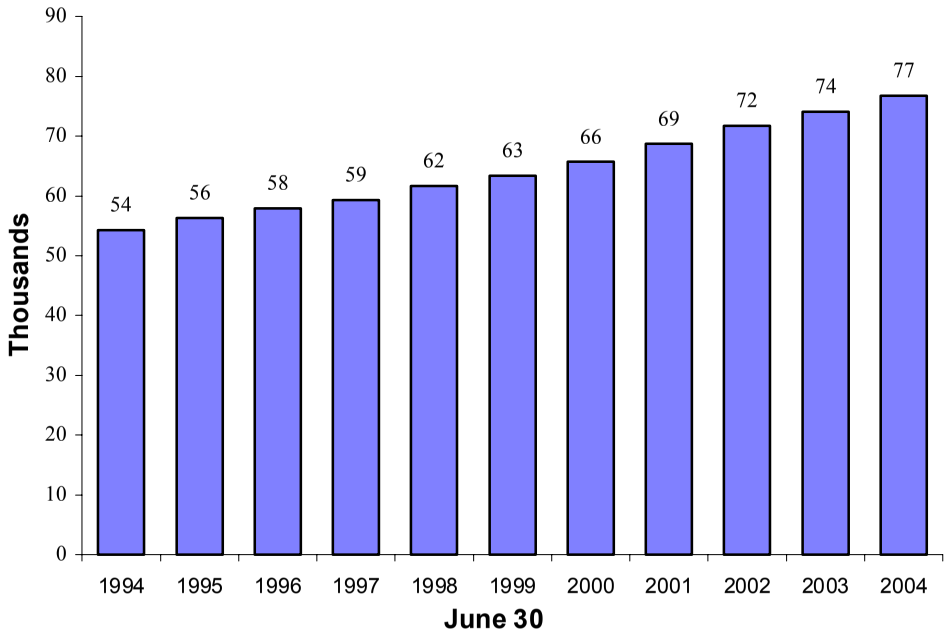
SUMMARY OF INACTIVE VESTED MEMBERS

General Membership	Special Services Group 1	Special Services Group 2	Total 6/30/2004	Total 6/30/2003	% Change
35,408	72	308	35,788	34,792	2.9%



SUMMARY OF RETIRED MEMBERS AND BENEFICIARIES

General Membership	Special Services Group 1	Special Services Group 2	Total 6/30/2004	Total 6/30/2003	% Change
75,918	248	616	76,782	71,715	7.1%



AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2004 FOR ACTIVE MEMBERS*

Males and Females - General Membership

	Years of Service																			
	0 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary
Under 25	5,690	12,890	110	22,345	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	5,800	13,070
25-29	8,495	23,227	2,715	30,320	33	28,752	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	11,243	24,956
30-34	5,395	22,712	5,993	33,060	1,577	36,660	34	33,337	0	NA	0	NA	0	NA	0	NA	0	NA	12,999	29,203
35-39	5,527	20,018	4,588	30,328	3,869	38,951	1,353	41,983	39	33,905	0	NA	0	NA	0	NA	0	NA	15,376	29,826
40-44	6,174	18,178	5,712	26,504	3,520	34,300	3,765	42,321	1,903	42,992	235	40,211	0	NA	0	NA	0	NA	21,309	29,798
45-49	5,043	18,983	5,500	25,727	4,130	31,028	3,445	39,102	3,597	45,598	2,973	43,838	144	40,589	0	NA	0	NA	24,832	32,227
50-54	3,929	20,047	4,096	26,482	3,899	30,294	3,910	36,195	3,128	41,900	5,075	47,967	2,798	48,446	86	42,647	0	NA	26,921	35,682
55-59	3,380	17,379	2,748	24,902	2,669	29,770	3,020	34,810	2,540	39,587	2,980	44,246	3,297	52,637	892	50,062	22	39,376	21,548	35,420
60-64	2,950	10,777	1,730	19,962	1,298	25,195	1,385	31,985	1,113	35,098	1,365	37,301	678	46,017	542	53,670	137	51,101	11,198	26,844
65-69	2,370	7,103	1,113	11,514	505	17,376	364	25,150	239	28,936	239	28,821	156	33,485	79	43,965	61	58,619	5,126	14,369
70 & over	2,525	8,407	1,333	8,655	336	9,124	59	15,450	14	11,844	21	21,668	10	23,730	4	24,158	8	47,589	4,310	8,835
Totals	51,478	17,855	35,638	26,677	21,836	32,078	17,335	37,669	12,573	41,749	12,888	44,485	7,083	49,640	1,603	50,519	228	51,858	160,662	29,665

*Including retired/reemployed members (see A-2)

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2004 FOR ACTIVE MEMBERS*

Males and Females - Special Services Group 1

	Years of Service																					
	0 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary
Under 25	31	32,920	1	45,469	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	32	33,312
25-29	91	36,668	82	42,314	1	38,251	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	174	39,338
30-34	57	35,100	116	43,934	51	46,341	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	224	42,234
35-39	28	34,557	71	43,493	92	46,732	62	47,761	2	48,902	0	NA	0	NA	0	NA	0	NA	255	44,761
40-44	11	46,236	43	44,866	49	46,661	80	48,773	41	51,018	3	52,359	0	NA	0	NA	0	NA	227	47,907
45-49	7	45,472	12	42,258	23	47,093	55	46,913	65	48,934	76	50,401	0	NA	0	NA	0	NA	238	48,319
50-54	4	47,666	7	46,792	19	44,510	24	45,390	45	48,979	79	52,357	46	57,299	0	NA	0	NA	224	51,024
55-59	2	4,793	6	33,570	8	34,987	12	47,547	12	46,082	21	56,296	23	53,792	3	60,826	1	40,481	88	48,373
60-64	6	20,676	2	22,361	1	51,052	3	39,143	5	49,457	7	48,774	10	55,863	5	55,624	0	NA	39	45,198
65-69	1	29,290	1	45,048	0	NA	2	43,203	1	47,493	1	58,240	0	NA	2	58,367	1	49,140	9	48,039
70 & over	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
Totals	238	35,740	341	43,269	244	46,095	238	47,508	171	49,252	187	51,902	79	56,096	10	57,733	2	44,811	1,510	45,723

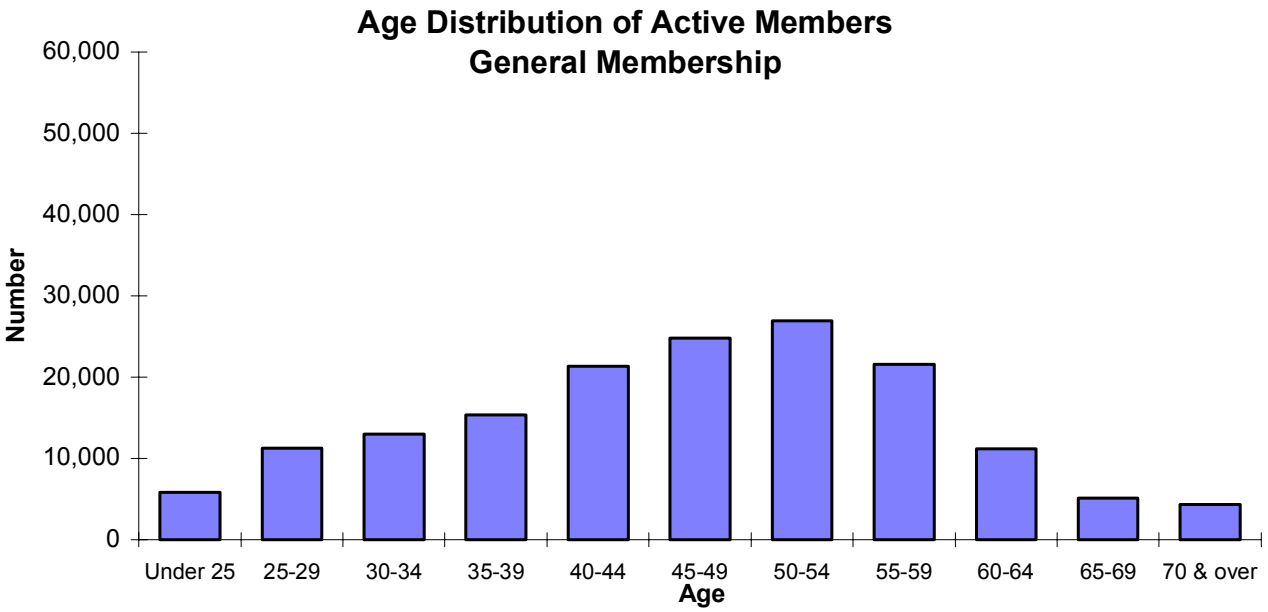
*Including retired/reemployed members (see A-2)

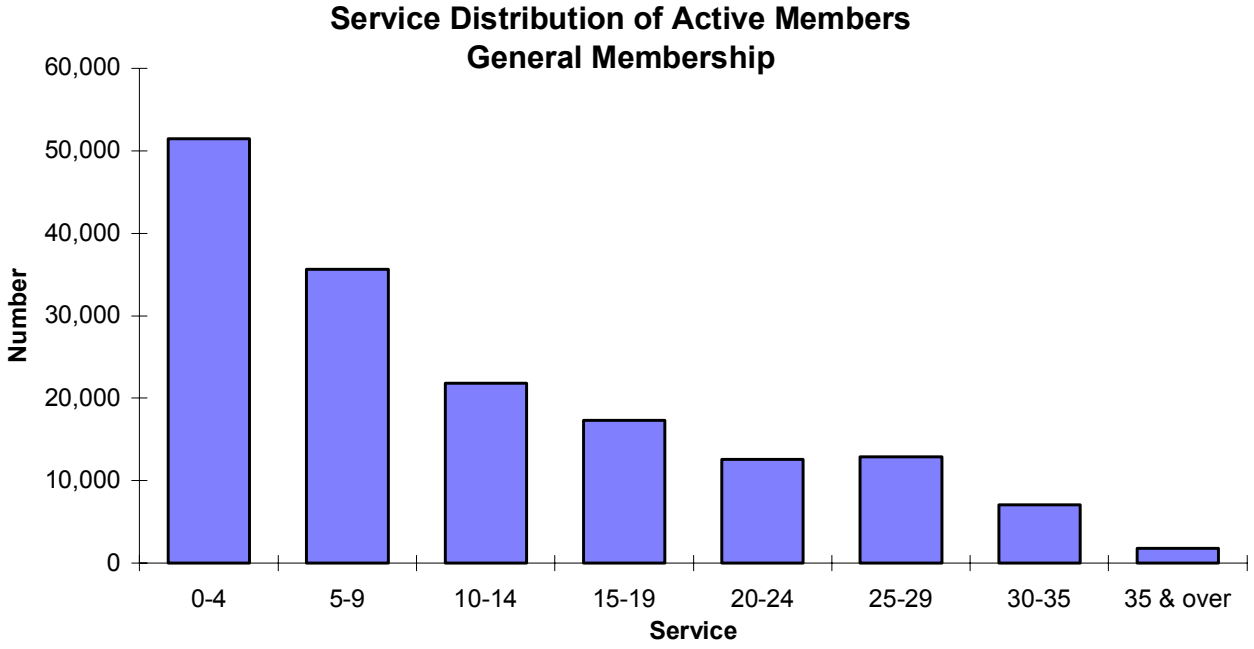
AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2004 FOR ACTIVE MEMBERS*

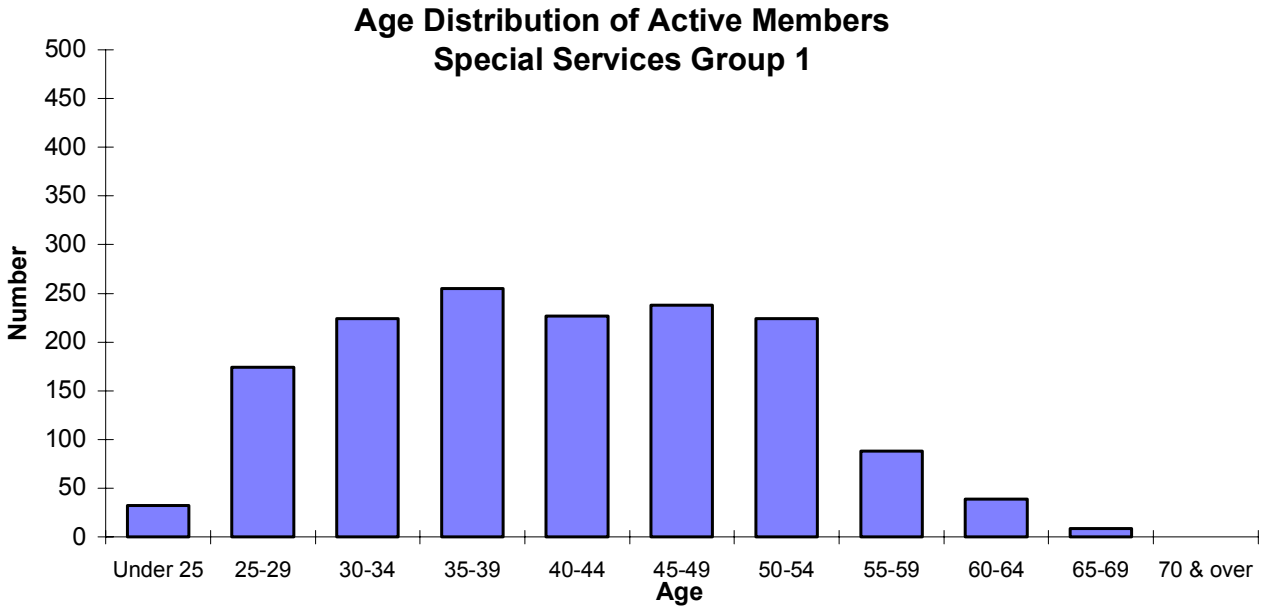
Males and Females - Special Service Group 2

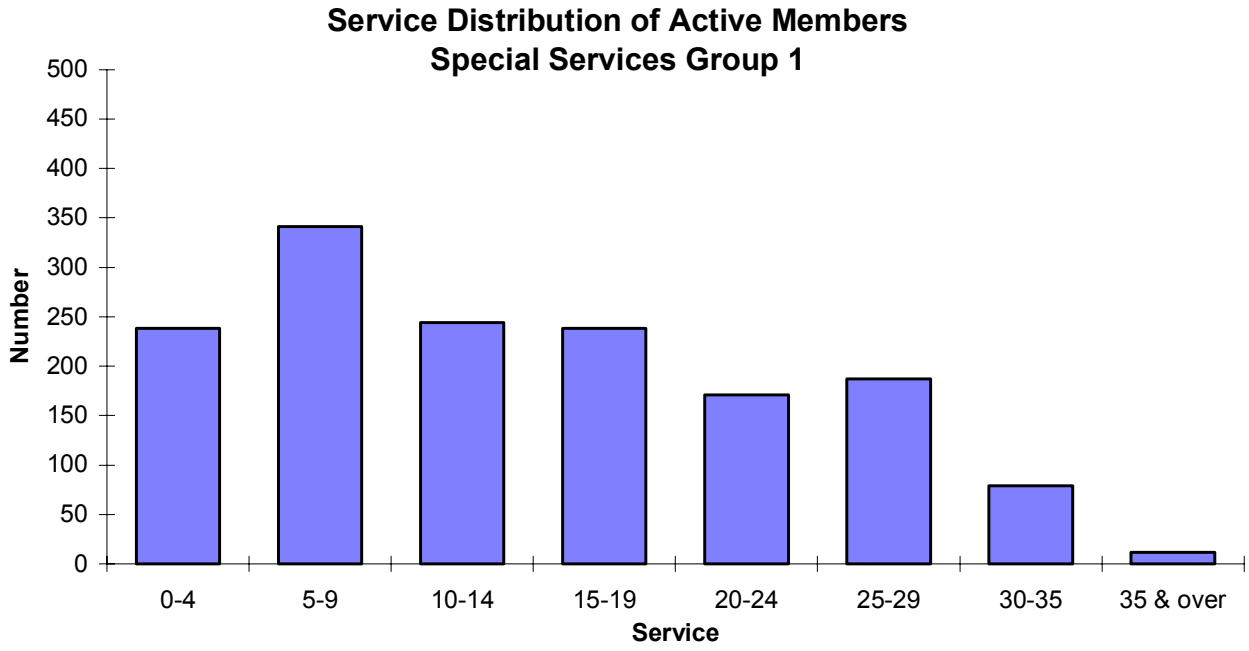
	Years of Service																					
	0 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary
Under 25	144	23,527	3	34,933	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	147	23,760
25-29	259	26,109	151	34,948	3	44,161	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	413	29,471
30-34	213	25,970	301	36,982	108	40,843	2	43,029	0	NA	0	NA	0	NA	0	NA	0	NA	624	33,911
35-39	129	26,578	241	36,206	166	40,946	88	43,602	2	45,088	0	NA	0	NA	0	NA	0	NA	626	36,547
40-44	108	25,694	193	36,752	111	40,145	140	43,016	102	46,504	14	48,468	0	NA	0	NA	0	NA	668	38,576
45-49	71	29,842	138	34,280	97	37,999	106	44,144	155	46,221	74	46,700	4	50,627	0	NA	0	NA	645	40,368
50-54	48	29,110	129	38,504	67	40,554	61	44,779	120	46,940	122	46,498	52	52,102	1	54,484	0	NA	600	43,137
55-59	43	27,232	74	39,432	47	35,875	50	44,478	68	44,807	39	45,641	43	49,530	8	47,081	1	57,721	373	41,260
60-64	19	17,525	27	35,455	28	38,421	15	39,229	26	43,149	11	46,608	6	50,095	8	47,724	0	NA	140	37,653
65-69	6	7,001	5	28,989	8	13,172	4	44,378	4	42,177	0	NA	0	NA	0	NA	1	60,845	28	24,978
70 & over	5	20,194	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	5	20,194
Totals	1,045	25,883	1,262	36,490	635	39,475	466	43,661	477	46,055	260	46,538	105	50,878	17	47,819	2	59,283	4,269	37,211

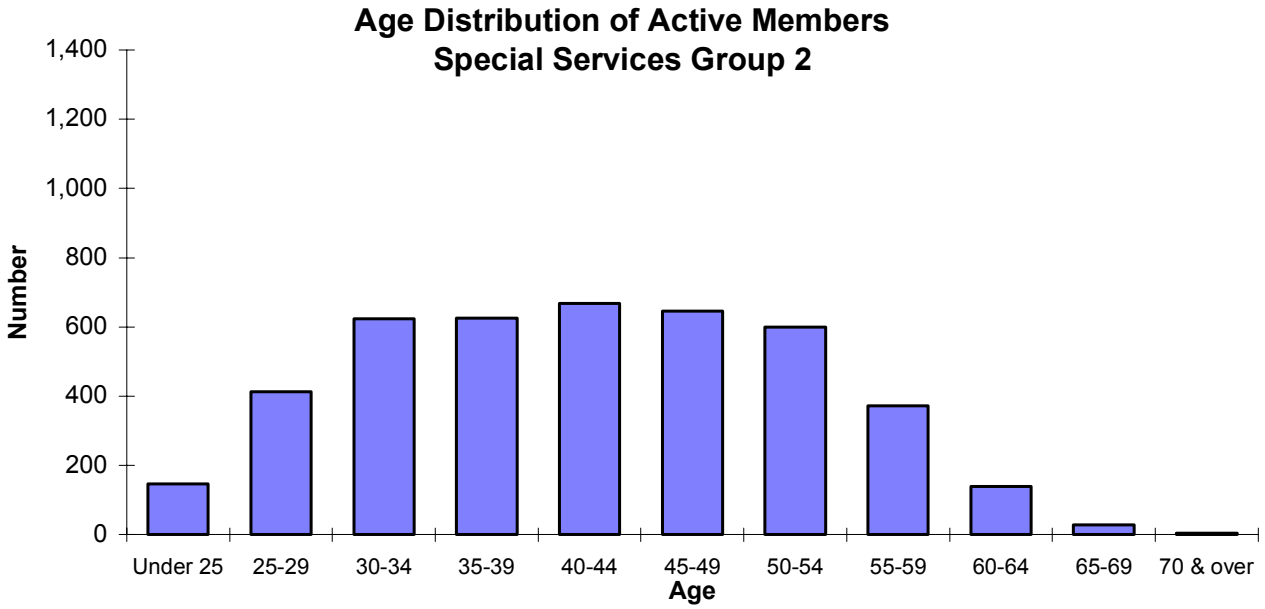
*Including retired/reemployed members (see A-2)

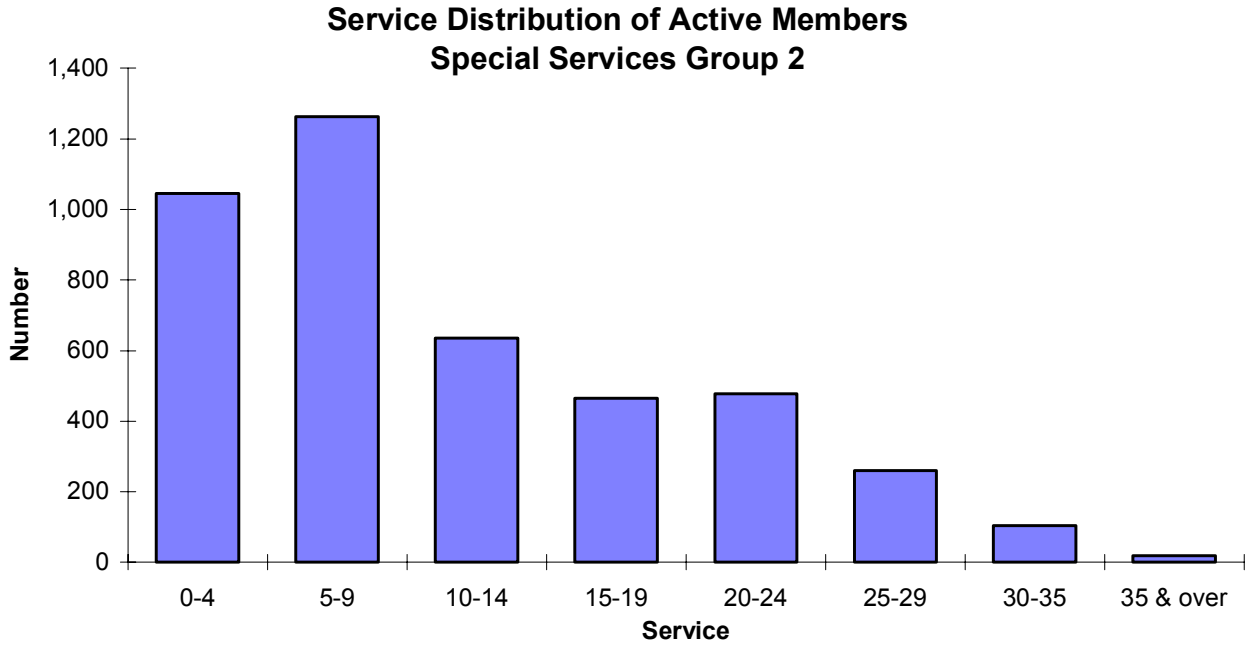

Age Distribution of Active Members
General Membership
60,000
50,000
40,000
30,000
20,000
10,000
0
Number
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Active Members
General Membership
60,000
50,000
40,000
30,000
20,000
10,000
0
Number
0-4
5-9
10-14
15-19
20-24
25-29
30-35
35 & over
Service


Age Distribution of Active Members
Special Services Group 1
Number
500
450
400
350
300
250
200
150
100
50
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Active Members
Special Services Group 1
Number
500
450
400
350
300
250
200
150
100
50
0
0-4
5-9
10-14
15-19
20-24
25-29
30-35
35 & over
Service


Age Distribution of Active Members
Special Services Group 2
Number
1,400
1,200
1,000
800
600
400
200
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Active Members
Special Services Group 2
Number
1,400
1,200
1,000
800
600
400
200
0
0-4
5-9
10-14
15-19
20-24
25-29
30-35
35 & over
Service

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2004 FOR INACTIVE VESTED MEMBERS

Males and Females - General Membership

	Years of Service																			
	0 to 3		4 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3
Under 25	0	NA	21	8,330	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	21	1,404
25-29	0	NA	328	19,778	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	328	3,767
30-34	0	NA	1,248	22,541	44	11,409	1	1,427	0	NA	0	NA	0	NA	0	NA	0	NA	1,293	5,767
35-39	0	NA	1,626	20,679	326	14,153	22	34,408	0	NA	0	NA	0	NA	0	NA	0	NA	1,974	7,593
40-44	0	NA	2,101	17,905	634	15,164	210	31,058	43	29,236	1	27,155	0	NA	0	NA	0	NA	2,989	9,471
45-49	0	NA	2,437	16,002	1,030	14,677	462	28,183	204	32,666	32	39,881	1	31,001	0	NA	0	NA	4,166	12,067
50-54	0	NA	2,729	15,966	1,312	16,224	723	26,555	411	32,000	184	38,161	36	37,961	1	39,342	0	NA	5,396	15,984
55-59	7,284	4,735	1,774	13,697	737	16,326	378	22,997	184	28,197	84	34,750	24	37,892	1	71,603	0	NA	10,466	4,664
60-64	3,896	4,343	837	11,394	274	14,966	121	19,529	49	22,570	16	20,292	4	37,381	2	26,468	1	48,407	5,200	3,064
65-69	2,022	3,801	275	7,419	62	11,582	27	13,909	10	15,810	7	15,410	0	NA	0	NA	0	NA	2,403	1,334
70 & over	1,039	2,802	99	4,603	16	12,723	10	6,608	7	12,785	1	8,780	0	NA	0	NA	0	NA	1,172	1,073
Totals	14,241	4,354	13,475	16,693	4,435	15,375	1,954	26,099	908	30,413	325	35,955	65	37,793	4	40,970	1	48,407	35,408	7,280

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2004 FOR INACTIVE VESTED MEMBERS

Males and Females - Special Services Group 1

Years of Service

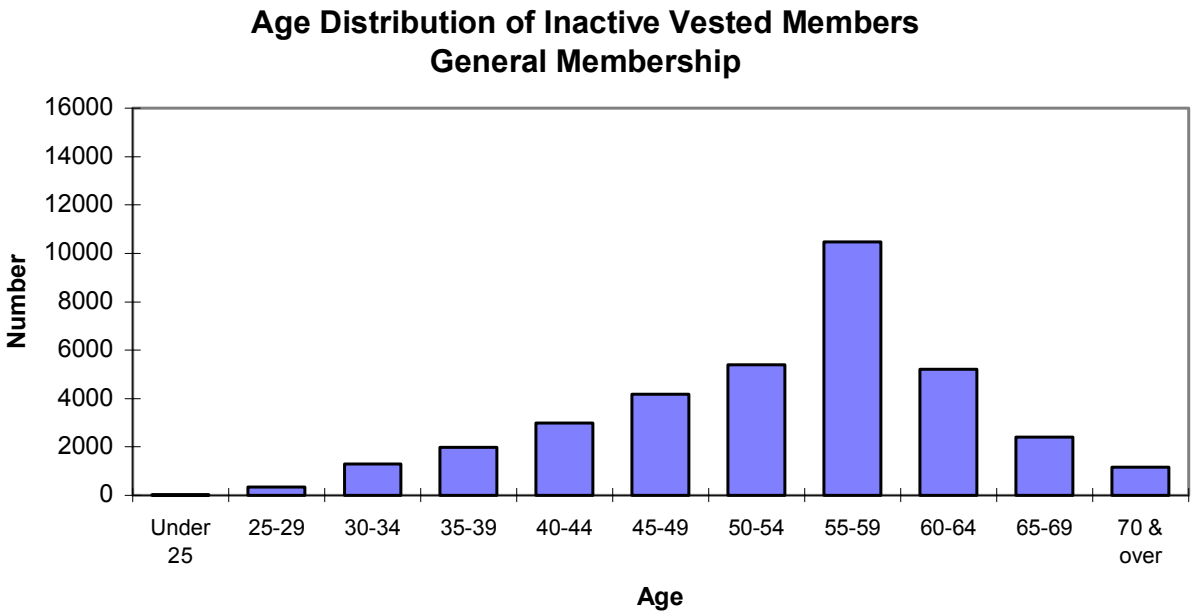
	0 to 3		4 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3
Under 25	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
25-29	0	NA	2	33,846	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	2	12,995
30-34	0	NA	4	38,153	2	18,598	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	6	15,748
35-39	0	NA	6	32,028	5	34,191	1	48,732	0	NA	0	NA	0	NA	0	NA	0	NA	12	25,359
40-44	0	NA	4	33,683	4	31,909	4	42,977	0	NA	0	NA	0	NA	0	NA	0	NA	12	35,974
45-49	0	NA	2	20,414	3	28,306	4	32,838	5	32,902	3	49,968	0	NA	0	NA	0	NA	17	54,458
50-54	0	NA	4	21,646	0	NA	7	25,169	2	38,638	2	45,346	1	68,314	0	NA	0	NA	16	50,539
55-59	3	690	0	NA	1	42,678	1	39,105	0	NA	1	37,611	0	NA	0	NA	0	NA	6	29,211
60-64	0	NA	1	21,002	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	1	18,263
65-69	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
70 & over	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
Totals	3	690	23	30,244	15	30,892	17	33,369	7	34,541	6	46,368	1	68,314	0	NA	0	NA	72	38,673

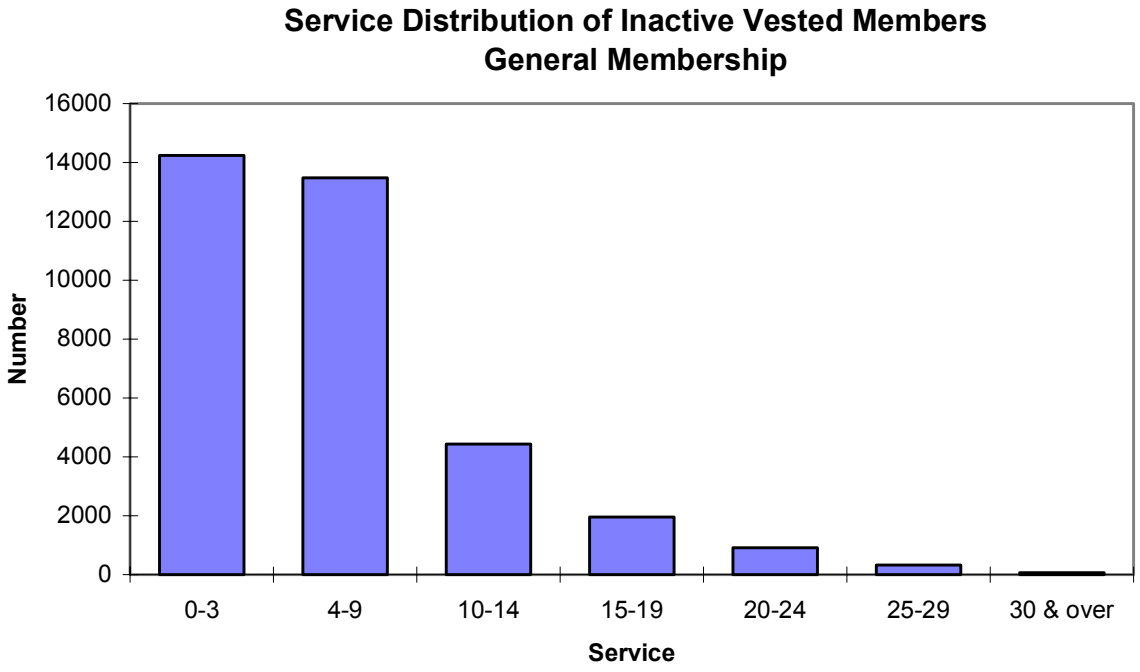
AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2004 FOR INACTIVE VESTED MEMBERS

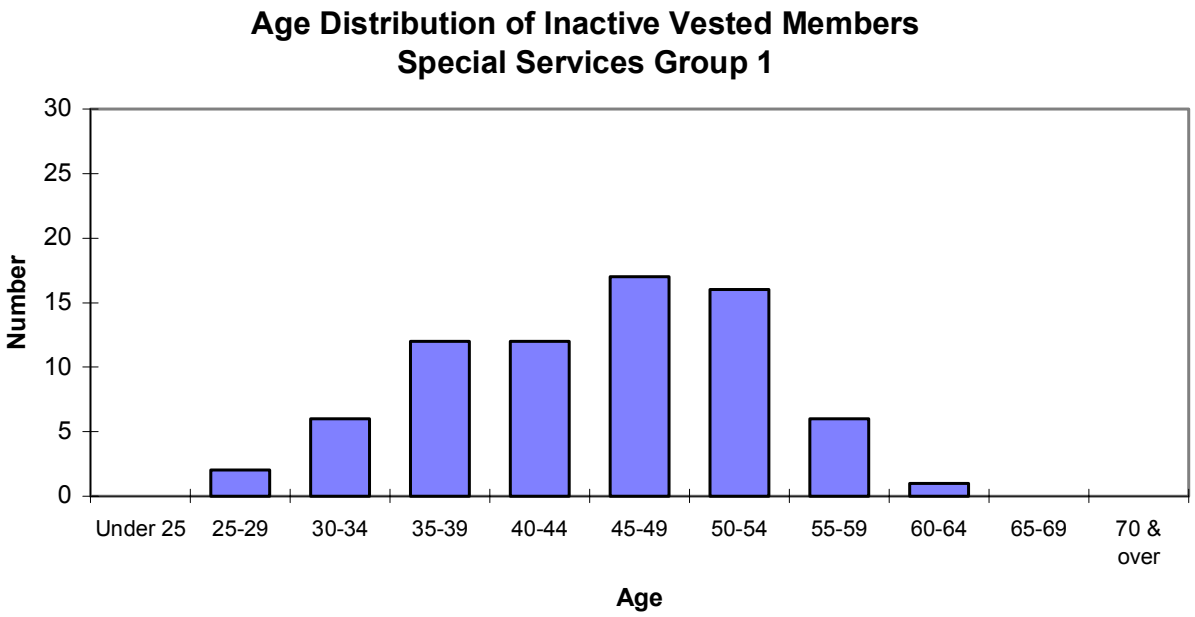
Males and Females - Special Services Group 2

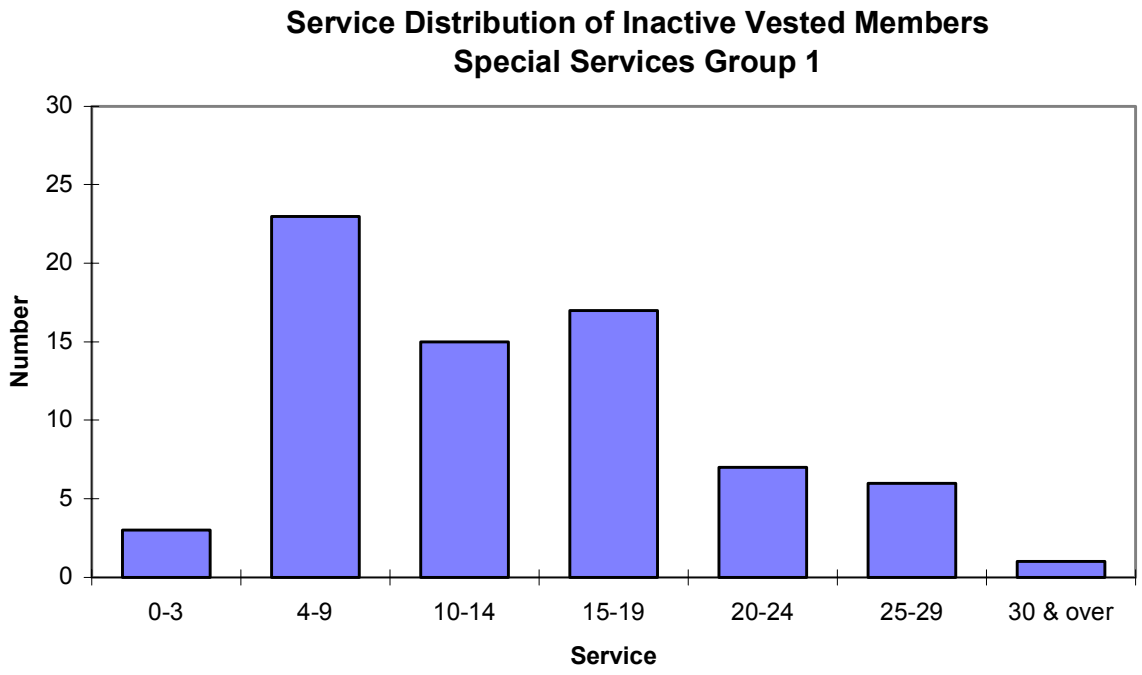
Years of Service

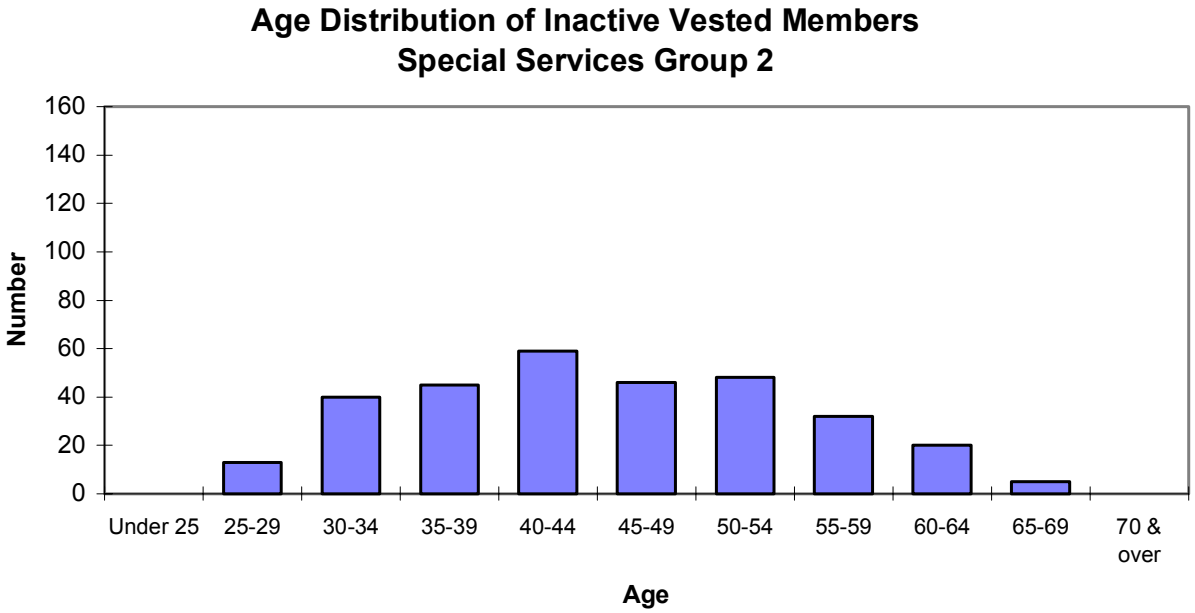
	0 to 3		4 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3
Under 25	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
25-29	0	NA	13	19,853	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	13	7,661
30-34	0	NA	39	22,148	1	19,572	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	40	8,621
35-39	0	NA	34	15,979	10	23,651	1	40,033	0	NA	0	NA	0	NA	0	NA	0	NA	45	11,494
40-44	0	NA	35	16,640	16	28,299	6	30,261	2	29,795	0	NA	0	NA	0	NA	0	NA	59	17,866
45-49	0	NA	27	17,238	7	19,524	5	28,011	5	30,348	2	42,816	0	NA	0	NA	0	NA	46	18,878
50-54	0	NA	16	17,512	10	20,926	8	29,352	10	32,334	2	46,495	2	53,253	0	NA	0	NA	48	33,070
55-59	15	10,023	6	17,703	6	19,668	1	27,451	2	26,131	2	38,797	0	NA	0	NA	0	NA	32	14,656
60-64	14	8,976	5	3,341	0	NA	0	NA	0	NA	1	4,015	0	NA	0	NA	0	NA	20	2,634
65-69	4	6,324	1	33,083	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	5	2,392
70 & over	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
Totals	33	9,130	176	17,893	50	23,456	21	29,710	19	30,891	7	37,176	2	53,253	0	NA	0	NA	308	16,251

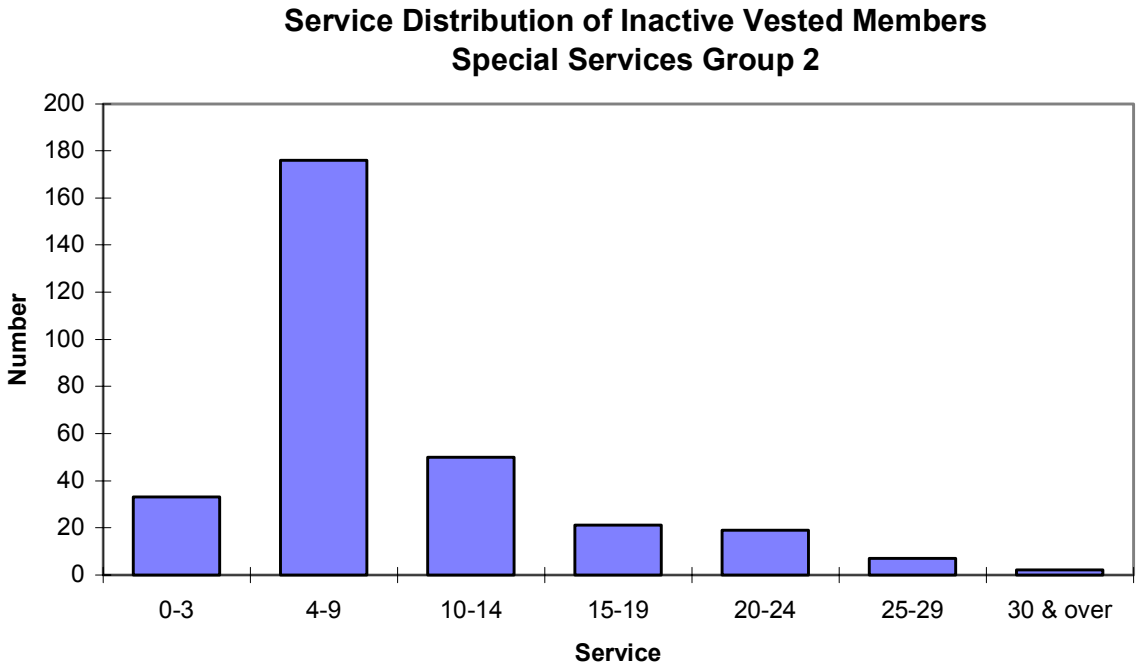

Age Distribution of Inactive Vested Members
General Membership
Number
16000
14000
12000
10000
8000
6000
4000
2000
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Inactive Vested Members
General Membership
Number
16000
14000
12000
10000
8000
6000
4000
2000
0
0-3
4-9
10-14
15-19
20-24
25-29
30 & over
Service


Age Distribution of Inactive Vested Members
Special Services Group 1
Number
30
25
20
15
10
5
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Inactive Vested Members
Special Services Group 1
Number
30
25
20
15
10
5
0
0-3
4-9
10-14
15-19
20-24
25-29
30 & over
Service


Age Distribution of Inactive Vested Members
Special Services Group 2
Number
160
140
120
100
80
60
40
20
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Inactive Vested Members
Special Services Group 2
Number
200
180
160
140
120
100
80
60
40
20
0
0-3
4-9
10-14
15-19
20-24
25-29
30 & over
Service

ANALYSIS OF RETIREES AND BENEFICIARIES

Males and Females - General Membership

Number of Members and Beneficiaries

Age	Chapt 97	Option 1	Option 2	Option 3	Option 4	Contingent Beneficiary	Option 5	Option 6	Period Certain	Total	Average Annual Benefit
Under 40	0	9	3	0	2	15	2	3	21	55	$ 7,283
40 to 44	0	23	2	2	7	12	6	4	6	62	6,128
45 to 49	0	64	15	15	23	30	11	9	4	171	7,496
50 to 54	0	119	32	37	52	68	21	25	9	363	8,745
55 to 59	0	1,366	1,134	824	474	132	649	962	15	5,556	16,354
60 to 64	0	2,880	2,036	1,488	1,446	211	1,374	1,103	44	10,582	15,695
65 to 69	0	4,308	2,935	1,837	2,552	360	1,979	519	57	14,547	12,441
70 to 74	0	4,555	3,114	1,523	2,581	510	1,762	104	63	14,212	8,783
75 to 79	0	4,226	3,075	1,170	1,800	593	1,367	5	33	12,269	6,328
80 to 84	0	3,669	1,992	860	1,053	520	1,255	0	12	9,361	5,115
85 to 89	6	2,746	630	450	356	262	1,030	0	3	5,483	4,213
90 to 94	4	1,411	178	236	65	90	454	0	0	2,438	3,501
95 to 99	6	461	32	89	5	22	105	0	0	720	3,516
100 & up	3	60	10	20	1	1	4	0	0	99	3,442
Counts	19	25,897	15,188	8,551	10,417	2,826	10,019	2,734	267	75,918	$ 9,590
% of Total	0.0%	34.1%	20.0%	11.3%	13.7%	3.7%	13.2%	3.6%	0.4%	100.0%	

ANALYSIS OF RETIREES AND BENEFICIARIES

Males and Females - Special Services Group 1

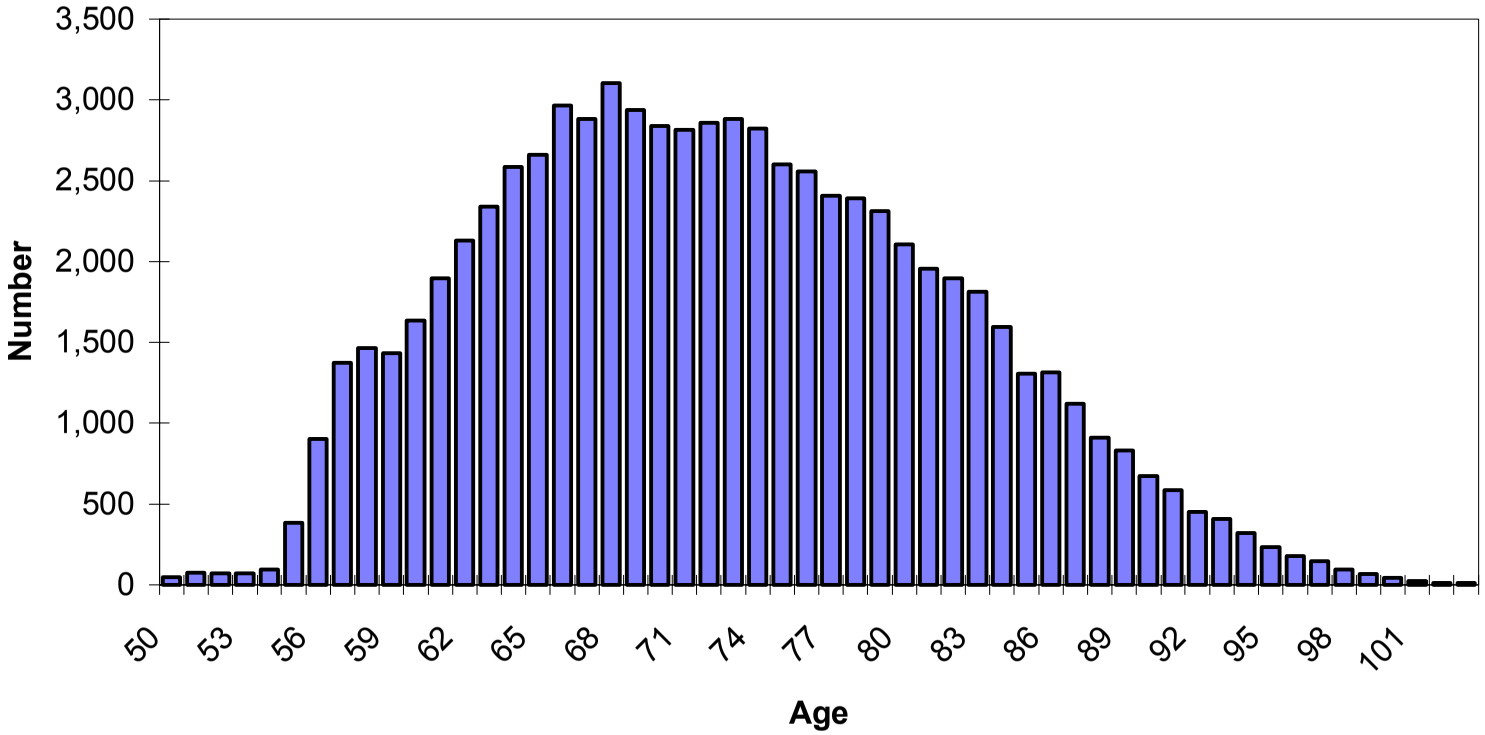
	Number of Members and Beneficiaries										Average
Age	Chapt 97	Option 1	Option 2	Option 3	Option 4	Contingent Beneficiary	Option 5	Option 6	Period Certain	Total	Annual Benefit
Under 40	0	1	0	0	0	0	0	0	0	1	$29,487
40 to 44	0	0	0	0	0	0	0	0	0	0	NA
45 to 49	0	1	0	0	1	2	0	0	0	4	17,019
50 to 54	0	1	1	0	1	0	1	2	0	6	20,222
55 to 59	0	13	4	3	13	2	9	19	0	63	25,225
60 to 64	0	20	6	4	24	5	4	6	0	69	22,480
65 to 69	0	9	3	6	25	2	5	8	0	58	19,029
70 to 74	0	9	6	1	14	5	2	0	1	38	14,593
75 to 79	0	1	2	0	0	4	0	0	0	7	9,803
80 to 84	0	0	0	0	0	2	0	0	0	2	6,990
85 to 89	0	0	0	0	0	0	0	0	0	0	NA
90 to 94	0	0	0	0	0	0	0	0	0	0	NA
95 to 99	0	0	0	0	0	0	0	0	0	0	NA
100 & up	0	0	0	0	0	0	0	0	0	0	NA
Counts	0	55	22	14	78	22	21	35	1	248	$20,565
% of Total	0.0%	22.2%	8.9%	5.6%	31.5%	8.9%	8.5%	14.1%	0.4%	100.0%	

ANALYSIS OF RETIREES AND BENEFICIARIES

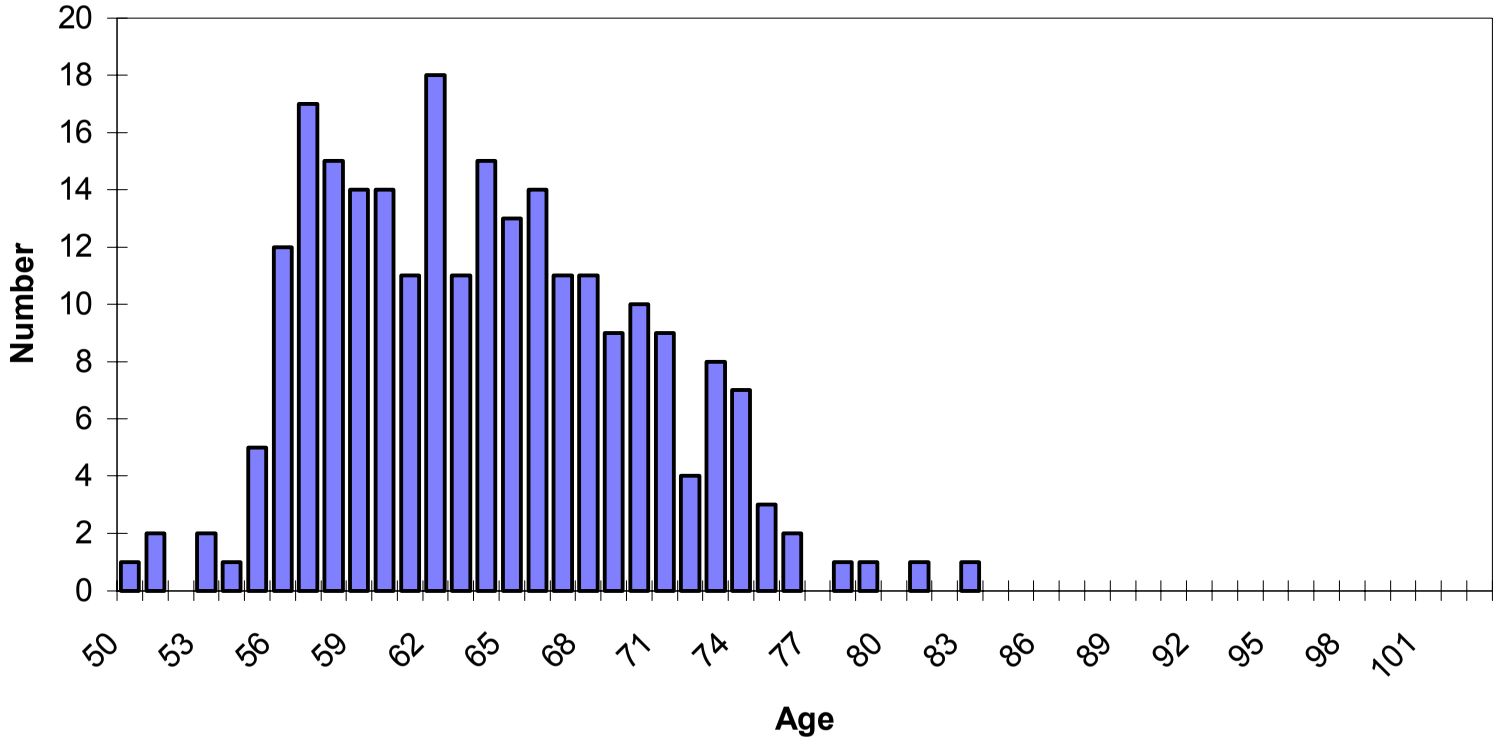
Males and Females - Special Services Group 2

Age	Chapt 97	Option 1	Option 2	Option 3	Option 4	Contingent Beneficiary	Option 5	Option 6	Period Certain	Total	Average Annual Benefit
	Number of Members and Beneficiaries										
Under 40	0	2	0	0	1	0	0	1	0	4	$ 7,459
40 to 44	0	3	1	2	1	1	0	1	0	9	14,089
45 to 49	0	1	0	3	2	1	0	3	0	10	15,126
50 to 54	0	3	2	1	4	3	0	4	0	17	18,400
55 to 59	0	36	15	10	27	1	9	33	0	131	21,264
60 to 64	0	40	23	14	46	5	11	22	2	163	17,798
65 to 69	0	45	17	9	63	8	13	11	1	167	15,350
70 to 74	0	29	8	2	41	4	7	0	1	92	12,398
75 to 79	0	4	0	0	6	4	3	0	0	17	10,151
80 to 84	0	1	0	0	0	3	1	0	0	5	8,711
85 to 89	0	0	0	0	0	1	0	0	0	1	7,582
90 to 94	0	0	0	0	0	0	0	0	0	0	NA
95 to 99	0	0	0	0	0	0	0	0	0	0	NA
100 & up	0	0	0	0	0	0	0	0	0	0	NA
Counts	0	164	66	41	191	31	44	75	4	616	$16,616
% of Total	0.0%	26.6%	10.7%	6.7%	31.0%	5.0%	7.1%	12.2%	0.6%	100.0%	

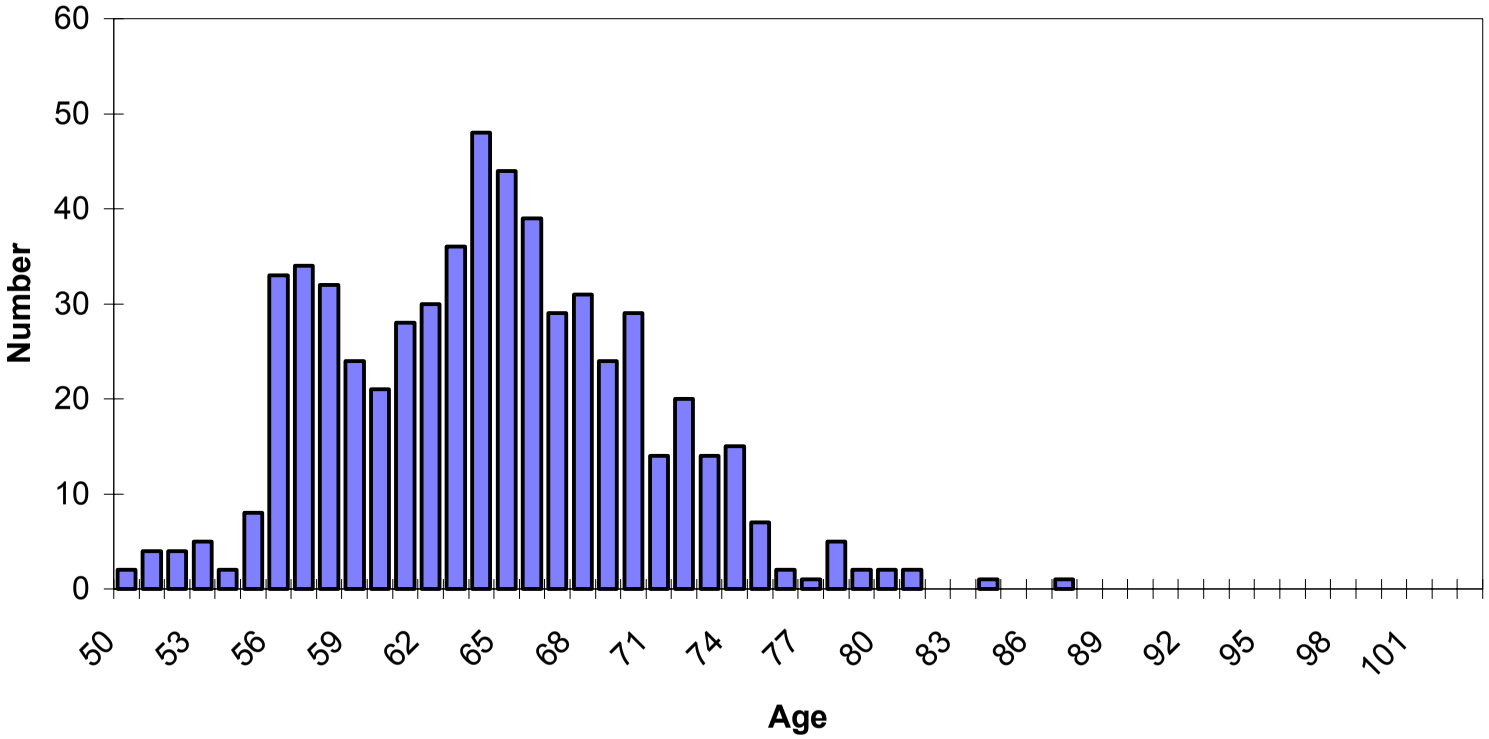
Age Distribution of Retirees & Beneficiaries
General Membership



Age Distribution of Retirees & Beneficiaries
Special Services Group 1



Age Distribution of Retirees & Beneficiaries
Special Services Group 2



APPENDIX B

SUMMARY OF PLAN PROVISIONS

APPENDIX B
SUMMARY OF PLAN PROVISIONS

IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Chapter 97B of the Iowa code sets out the IPERS provisions, which are briefly summarized as follows:

Participation: In general, the System covers people in non-federal public employment within the State of Iowa. Exceptions to this are set out in the law. A notable exception are those covered by another public system in Iowa (such as judges, state patrol, and policemen and firemen in cities having civil service), employees of the Regents' institutions, and employees of the community colleges who elect alternative coverage under TIAA. Membership is mandatory if a person is in covered employment.

Final Average Salary: The average of covered salaries for the highest paid three years of the member's service.

Age and Service Requirements for Benefits:

Normal Retirement	Earliest of the first day of the month of the member's 65th birthday, age 62 with 20 years of service or Rule of 88 (age plus service equals/exceeds 88), with a minimum age 55. Age 50 with 22 year of service or age 55 for Special Services Group 1 (phased in from July 1, 2004 through July 1, 2008). Age 55 for Special Services Group 2 members.
Early Retirement	First day of any month starting with the month of the member's 55th birthday but preceding the normal retirement date.
Late Retirement	After normal retirement date.
Deferred Vested Benefit	Before age 55 with at least four years of service.
Death Benefit	Upon death of a member before benefits have started.

Retirement Benefits:

Normal Retirement	An annual annuity equal to 2% of Final Average Salary (FAS) for each year of service up to 30 years plus 1% of FAS for each of the next 5 years of service. Maximum years of service recognized for benefit accrual purposes is 35.

	Members of the Special Services Groups receive 60% of FAS after completion of 22 years of service, plus an additional 1.5% of FAS for years of service greater than 22 but not more than 30.
Early Retirement	An annuity, payable at the normal retirement date, determined in the same manner as for normal retirement. A reduction of .25% per month is applied for each month the benefit commences prior to normal retirement age.
Late Retirement	An annuity, payable after covered employment ends, determined as for normal retirement.
Form of Annuity:	The base form, or normal form, is a life annuity with a guaranteed return of employee contributions. Optional forms include a straight life annuity, a ten year certain and life thereafter annuity, joint and survivor annuities (with 25%, 50%, 75% or 100% to the surviving joint annuitant), and joint and survivor annuities with a pop-up.

Termination Benefits:

Before age 55, with less than four years of service	A refund of the member's contributions with interest.
Before age 55 with four or more years of service	At the member's election either: (1) a refund of the member's contributions under the plan with interest plus a portion (years of service divided by 30) of the employer's contributions with interest, or (2) a deferred benefit determined as for normal retirement. Payments can begin at normal or early retirement.

NOTE: A person eligible for, and receiving, federal social security or railroad retirement disability benefits may begin IPERS benefits, unreduced, at any age.

Post-retirement Benefit Increases:	Annual dividends are paid to those retired prior to July 1990. Effective with the November 2000 dividend payment, the dividend will be adjusted by the least of the following percentages: (1) the change in the CPI, (2) percentage certified to by the actuary as affordable by the System, and (3) 3%.

Death Benefits:	A lump sum equal to the greater of 1) the member's contributions with interest, plus 1/30 of the member's salary times years of membership service (up to 30) and 2) the present value of the member's accrued benefit. The beneficiary may optionally elect to receive an actuarially equivalent lifetime annuity. Special service members killed in the line of duty are entitled to an additional lump sum payment of $100,000.
Disability Benefits:	An annuity, payable immediately, equal to the Normal Retirement Benefit. For Special Service Members, the benefit is the greater of the Normal Retirement Benefit and either 50% (for ordinary disability) or 60% (for in-service disability) of Final Average Earnings.
Source of Funds:	
General Membership:	Member Contributions 3.7% of covered pay. Employer Contributions 5.75% of covered pay.
Special Services Group 1:	Actuarially determined. Members contribute 50% and employers contribute 50%.
Special Services Group 2:	Actuarially determined. Members contribute 40% and employers contribute 60%.

.

APPENDIX C

ACTUARIAL METHODS AND ASSUMPTIONS

APPENDIX C

ACTUARIAL METHODS AND ASSUMPTIONS

Sound financing of any retirement system requires that benefits accruing to its members shall be paid for during their active working lifetime so that when a member (or his beneficiary) becomes entitled to a benefit, the monies necessary to provide such benefit shall be on hand. In this way, the cost of benefits for present active members will not become a liability to future taxpayers.

The principal purpose of an actuarial valuation is to calculate, on the basis of certain assumptions, the present value of benefits that are payable in the future from the system to present members (and their beneficiaries) and the present value of future contributions to be made by the members and their employers. Having calculated such present values, the level of annual contribution to the system required to fund (or pay for) the benefits, in accordance with the above stated principle of sound financing, may be determined.

The assumptions and methods used in the actuarial valuation and the resulting liabilities are presented in this Section II.

PART A - VALUATION ASSUMPTIONS

Retirement System contribution requirements and actuarial present values are calculated by applying experience assumptions to the benefit provisions and census (member) information of the Retirement System, using the actuarial cost method.

The principal areas of risk which require experience assumptions about future activities of the Retirement System are:

- long-term rates of investment return to be generated by the assets of the system
- patterns of pay increases to members
- rates of mortality among members, retirants and beneficiaries
- rates of withdrawal of active members
- rates of disability among active members
- the age patterns of actual retirements

In making a valuation, the monetary effect of each assumption is calculated for as long as a present member survives -- a period of time which can be as long as a century.

Actual experience of the Retirement System will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experiences. The result is a continual series of adjustments to the computed contribution rate, or alternatively to the amortization period for the unfunded actuarial accrued liability.

From time to time, one or more of the assumptions are modified to reflect experience trends (but not random or temporary year to year fluctuations). A complete review of the actuarial assumptions was completed in 2002, based on experience from 1998-2001.

Rate of Investment Return (effective June 30, 1996)

7.50% per annum, compounded annually, net of expenses.

Rates of Mortality (effective June 30, 2002)

		General Membership	Special Services
Males:	Inactive Lives:	RP-2000 Healthy Annuitant Table, Set Forward One Year	RP-2000 Healthy Annuitant Table Set Forward Three Years
	Active Lives:	RP-2000 Employee Table, Set Forward One Year	RP-2000 Employee Table Set Forward Three Years
Females:	Inactive Lives:	RP-2000 Healthy Annuitant Table, Set Back Two Years	RP-2000 Healthy Annuitant Table No Age Adjustment
	Active Lives:	RP-2000 Employee Table, Set Back Two Years	RP-2000 Employee Table No Age Adjustment
	The RP-2000 Tables are used with generational mortality		
Disabled Members:	Annual rates are the greater of 3% or 2.5% plus the corresponding non-disabled rate (based on GAM94 for males, 95% of GAM 94 for females)		Same as healthy members set forward 6 years
Beneficiaries:	Same as members		Same as members

For Special Services active members, 5% of deaths are assumed to be service related.

Rates of Disablement (effective June 30, 1999)

	Annual Rate Per 1,000 Members		
Age	Males	Females	Special Services
27	0.2	0.2	0.2
32	0.2	0.2	0.2
37	0.4	0.3	0.4
42	0.7	0.5	0.7
47	1.4	0.9	1.3
52	3.3	2.2	2.3
57	6.3	3.9	5.2
62	9.0	6.2	9.8

Rates of Termination of Employment (effective June 30, 2002)

General Membership

	Annual Rate of Withdrawals Per 1,000 Members					
Males:						
Age	**Years 0-1**	**Year 2**	**Year 3**	**Years 4-6**	**Years 7-8**	**Years 9+**
22	330.0	250.0	220.0	99.0	88.0	66.0
27	231.0	145.0	121.0	99.0	88.0	66.0
32	198.0	145.0	110.0	74.8	55.0	39.0
37	195.8	140.0	110.0	74.8	49.5	33.0
42	195.8	140.0	110.0	74.8	49.5	25.3
47	195.8	130.0	99.0	74.8	49.5	19.8
52	176.0	110.0	77.0	74.8	49.5	19.8
55+	165.0	110.0	55.0	74.8	49.5	19.8
Females:						
Age	**Years 0-1**	**Year 2**	**Year 3**	**Years 4-6**	**Years 7-8**	**Years 9+**
22	330.0	250.0	220.0	110.0	99.0	55.0
27	275.0	170.0	140.0	110.0	99.0	55.0
32	247.5	170.0	140.0	104.5	71.5	49.5
37	198.0	150.0	110.0	104.5	66.0	36.3
42	198.0	150.0	110.0	88.0	60.5	30.8
47	198.0	130.0	110.0	82.5	49.5	25.3
52	198.0	130.0	110.0	82.5	49.5	25.3
55+	198.0	130.0	110.0	82.5	49.5	25.3

Special Services

Age	Annual Rate of Withdrawals Per 1,000 Members
22	100
27	70
32	35
37	35
42	35
47	35
52	30

Rate of Election of Return of Contributions by Vested Members (effective June 30, 2002)

Years of Service	General Membership		Special Services
	Males	Females	
5	39%	30%	47%
10	34%	27%	35%
15	29%	20%	15%
20	24%	15%	5%
25	20%	10%	0%
30	15%	5%	0%

Rates of Salary Increase (effective June 30, 1999)

Annual Rate of Increase Per 1,000 Members (%)

Age	Years 0-1	Year 2	Year 3	Years 4-5	Years 6-7	Years 8-10	Years 11-15	Years 16-20	Years 21+
22	18.5	12.5	8.5	8.0	7.5	6.0	5.5	5.0	4.9
27	15.5	10.0	8.3	7.0	6.5	6.0	5.5	5.0	4.9
32	14.8	9.8	8.0	7.0	6.5	6.0	5.5	5.0	4.9
37	14.7	9.8	8.0	7.0	6.3	6.0	5.5	5.0	4.9
42	14.7	9.2	8.0	7.0	6.2	6.0	5.5	4.9	4.9
47	14.2	9.0	8.0	7.0	6.2	5.5	5.2	4.8	4.2
52	13.3	8.3	6.9	7.0	6.2	5.5	5.0	4.5	4.2
57	12.5	7.7	6.9	7.0	5.7	5.5	4.6	4.5	4.2
62	10.9	7.1	6.7	5.0	4.5	4.5	4.5	4.5	4.0

Retirement Rates (effective June 30, 2002)

Upon meeting the requirements for early retirement, the following rates apply to general members:

Age	Assumed Retirement Rate
55-59	5%
60	10
61	15
62	25
63-64	20

Upon reaching the requirements for normal retirement, the following rates apply:

	Assumed Retirement Rates		
Age	1st Year Eligible	After 1st Year	Special Services
55	20%	10%	15%
56	20%	10%	10%
57-59	20%	20%	10%
60	25%	25%	10%
61	35%	30%	20%
62	50%	40%	35%
63	35%	30%	20%
64	35%	35%	35%
65	30%	45%	100%
66	20%	20%	100%
67-68	15%	15%	100%
69	15%	35%	100%
70+	100%	100%	100%

Special Services Group 1 ages 50 to 55: 30%

Terminated vested members are assumed to retire at age 62 (55 for Special Services).
For general membership, retired re-employed members are assumed to retire at a rate of 25% per year until age 80 when all are assumed to retire.

Rate of Crediting Interest on Contribution Balances (effective June 30, 2002)

4.25% per annum, compounded annually

Rate of Inflation (effective June 30, 1999)

3.5% per annum

Payroll Growth Assumption (effective June 30, 1999)

4.0% per annum

ACTUARIAL COST METHOD

The actuarial cost method is a procedure for allocating the actuarial present value of pension plan benefits and expenses to time periods. The method used for the valuation is known as the entry age normal actuarial cost method. Under this method, a total contribution rate is determined which consists of two parts: (i) the normal cost rate and (ii) the unfunded actuarial accrued liability (UAAL) rate. The entry age normal cost method has the following characteristics:

(i) The annual normal costs for each individual active member are sufficient to accumulate the value of the member's pension at time of retirement.

(ii) Each annual normal cost is a constant percentage of the member's year by year projected compensation.

The entry age normal actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's compensation between the entry age of the member and the assumed exit ages.

The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial accrued liability. Deducting the actuarial value of assets from the actuarial accrued liability determines the unfunded actuarial accrued liability (UAAL). The difference between the statutory contribution rate (9.45%) and the normal cost rate is used to finance the UAAL and the number of years necessary to finance the unfunded actuarial accrued liability as a level percent of member payroll is determined.

DEFINITION OF TERMS

Actuarial Liability	The difference between the actuarial present value of system benefits and the actuarial value of future normal costs. Also referred to as "accrued liability" or "actuarial accrued liability."
Actuarial Assumptions	Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
Accrued Service	Service credited under the system that was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement system benefits between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method."
Experience Gain (Loss)	The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.
Actuarial Present Value	The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
Amortization	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with lump sum payment.
Normal Cost	The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method.

Unfunded Actuarial Liability

The difference between actuarial liability and the valuation assets. Sometimes referred to as "unfunded accrued liability" or "unfunded liability".

Most retirement systems have unfunded actuarial liability. They arise anytime new benefits are added and anytime an actuarial loss is realized.

The existence of unfunded actuarial liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial liability does not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial liability and make payments to finance it. Also of importance are trends in the amount or duration of payment.

.

APPENDIX D

IPERS Funding Policy

APPENDIX D

IPERS FUNDING POLICY

This policy was developed by joint action of IPERS' management team and the System's actuarial consultant, and adopted by IPERS management in 1996.

Purpose

This funding policy is intended to provide a measure of the funded status of the Iowa Public Employees' Retirement System (System) on a long-term basis and to provide a set of safeguards as guidelines to help ensure the financial solvency of the System.

Recognizing that the System and its environment are not static, periodic review of this policy shall be conducted to ensure its continuing validity.

Primary Goal

The primary funding goal of the System is to be funded on an actuarially sound basis over the long term by maintaining actuarial contribution rates, given the maximum amortization period, which are equal to or less than the statutory contribution rates.

Definition of "Fully Funded"

The term "fully funded" is used to describe the situation in which the assets are equal to or greater than the liabilities. The focus of IPERS is to define assets and liabilities on a long term basis; therefore, the IPERS funding policy defines the term "fully funded," as well as the terms "actuarially sound" and "financial solvency," to mean that the current actuarial value of assets along with the future expected contributions will be sufficient to provide the benefits promised to members for both accrued and expected future service (as set forth in Iowa code Chapter 97B) within the parameters established in this funding policy. The minimum standards for the System to be considered fully funded is that the normal cost rate plus the amortization payment on the unfunded actuarial liability may not exceed the statutory combined contribution rate. In determining the amortization payment, the amortization period shall never exceed 30 years.

Safeguards for System to Remain Fully Funded

The following safeguards are established to ensure that IPERS continues to be funded on an actuarially sound basis over the long term, so that adequate funds will accumulate to provide all benefits promised to members.

1. The **normal cost rate** (the level percentage of salary required to pay the cost of retirement benefits that are allocated to the current year of service), based on the actuarial cost method used to determine the annual funding requirements for the System, shall not exceed the statutory combined employee/employer contribution rate minus 0.5%.

2. Given the statutory combined employer/employee contribution rate, the amortization period for the unfunded liability as reported in the annual valuation shall not exceed 24 years.

3. Any change in the benefit structure of IPERS that results in an increase in the normal cost rate and/or the unfunded actuarial liability, and/or any distribution to eligible members, should not be considered unless (a) the amortization period reported in the last actuarial valuation report is 20 years or less, and either (b) the amortization period has been less than the maximum (24 years) for at least three consecutive years or (c) the amortization period has been less than ten years for at least two consecutive years, subject to the additional constraint that any distribution does not prevent the amortization period of the prior period from declining.

4. Consideration should be given to increasing the statutory contribution rate if either of the following occur at least three years in any five consecutive year period:
    - The normal cost rate exceeds the standard set in item (1) above
    - The amortization period exceeds the standard set in item (2) above by more than 5 years.